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UNIVERSITY OF ALBERTA

PRECONDITIONS AND RESPONSES TO DYNAMIC INTERPRETATION IN SHORT-TERM INDIVIDUAL PSYCHOTHERAPY

ANTHONY S. JOYCE

(C)

A THESIS

SUBMITTED TO THE FACULTY OF GRADUATE STUDIES AND RESEARCH

IN PARTIAL FULFILLMENT OF THE REQUIREMENTS FOR THE DEGREE OF

DOCTOR OF PHILOSOPHY

MEDICAL SCIENCES (PSYCHIATRY)

EDMONTON, ALBERTA

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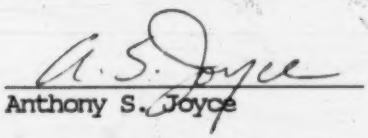

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IN PARTIAL FULFILLMENT OF THE REQUIREMENTS FOR THE DEGREE OF

DOCTOR OF PHILOSOPHY IN THE MEDICAL SCIENCES

IN PSYCHIATRY.

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DEDICATION

This work is dedicated to my loving wife and friend Martha. Without her unflagging support and her willingness to lend a sympathetic ear to my recurrent anguish about the process, my own "working" responses may not have been as frequent.

ABSTRACT

A multivariate examination of episodes of patient-therapist interaction from short-term, psychodynamic, individual psychotherapy was conducted. Episodes were characterized by the therapist's provision of a dynamic interpretation. Interpretations had been independently identified through the use of a reliable system for differentiating types of therapist interventions. The first minute of the patient's response had also been independently rated on a dimension of "nonwork-work". A total of 1081 episodes was obtained from 50 completed cases of short-term therapy. A comprehensive battery of rating measures was applied to patient material both prior (the precondition) and subsequent (the response) to the target interpretation. Data on patient characteristics, the therapy alliance, session outcome, and therapy outcome were also available from the controlled, clinical trial of short-term psychotherapy involved in derivation of the episode sample. A patient characteristic of particular interest was based on an interview measure of the patient's quality of object relationships. Initial analyses examined therapist behaviors and patient precondition process in "nonwork" versus "work" episodes, as well as the dimensions underlying patient response to interpretation. Following identification of response dimensions, subsequent analyses examined the prediction of patient response and the relationships between response dimensions and indices of session/therapy outcome. The form of the interpretation was not found to differ between "nonwork" and "work" episodes. In general, therapists were found to be less active during "work" episodes, making less frequent use of the specific categories of question, clarification, and confrontation.

Patient precondition process associated with "work" in the response was characterized by a subjective focus that was integrated across channels of the patient's communication. The patient's response to interpretation was found to vary on twelve independent dimensions; this multidimensional view of the response accorded well with the clinical literature. Characteristics of the interpretation and the patient proved to be the most powerful predictors of response to interpretation. In particular, the therapist's "accurate" identification of transference patterns was found to be directly associated with a more active patient engagement during the response segment. Analyses of the relationships between patient response dimensions and outcome indices highlighted a possible differential response to psychotherapy mediated by the patient's quality of object relationships. Results are addressed from the perspective of a "generic model" of the psychotherapy process. Clinical implications of the findings are also considered.

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GLOSSARY OF TERMS

Correspondence - The degree to which the content of the therapist's interpretation matches the content of the therapist's initial formulation of the patient's dynamic conflict. Correspondence was assessed both for references to dynamic components and object relationships, and was held to represent interpretation "accuracy".

Dynamic Component - Defined as one part of a patient's conflict which exerts an internal force on some other part of the patient. Dynamic components as assessed by the TIRS include wish, anxiety, defense, and dynamic expression. Dynamic expressions are those patient affects, cognitions, and behaviors that internally influence the patient.

EXP - Experiencing Scale rating.

Interpretation - The TIRS places each therapist intervention (speaking turn) into one of 10 categories. A therapist intervention which addresses one or more dynamic components is defined as an interpretation (TIRS categories 7-10).

PCRS - Patient Content Reference System.

PRI - Patient Response to Interpretation Scale.

QOR - Quality of object relations is defined as an individual's enduring tendency to establish certain kinds of relationships with others. Assessment of this personality characteristic involves an unstructured clinical interview conducted in two 1-hour sessions held a week apart. The patient's overall QOR score ranges from 1-9 and can be employed as a continuous variable in data analyses.

"Readiness" - A patient state evident prior to the therapist's provision of an interpretation that is associated with patient "work" in the response to interpretation. In the present study, "readiness" refers to a composite variable derived from a discriminant function analysis of precondition segment process measures. The composite represented a behavioral index of "readiness" and defined an integrated orientation to subjective processes.

SDR - Speech Disturbance Ratio.

STI - Short-term, dynamically-oriented individual psychotherapy.

TIRS - Therapist Intervention Rating System.

VRM - Verbal Response Mode categories.

VQ - Vocal Quality categories.

"Work" - The patient's response to interpretation was rated as indicative of "work" if the patient preserved a focus on him/herself; preserved a focus on the meaning of the interpretation; and added something important to what had been conveyed by the interpretation.

INTRODUCTION

OVERVIEW

Interest in short-term approaches to dynamically-oriented individual psychotherapy has increased markedly during the past two decades (Burke, White, & Havens, 1979; Ursano & Hales, 1986). This interest is associated with both clinical and practical concerns. Widespread clinical appeal developed following the publication of successful case studies by Malan, Davanloo, Sifneos, and Mann. Short-term approaches to psychotherapy allow dynamically-oriented clinicians to apply familiar concepts in novel ways. In contrast to long-term dynamic approaches, short-term approaches demand a more circumscribed problem focus, greater therapist activity, earlier emphasis on transference material, and less reliance on a prolonged period of working through. Practical interest in short-term approaches is associated with their apparent cost-effectiveness (Piper, Debbane, Bienvenu, & Garant, 1984). Short-term dynamically-oriented techniques represent a viable approach to treatment in a time of manpower restrictions, increased demand for services, and constraints posed by third party payment sources.

Clinical case studies can suggest general technical guidelines but are questionable as scientific reports because of poor internal validity. Practical pressures require that short-term techniques are applied in the appropriate manner. It is thus important to empirically determine how short-term approaches bring about change, and for whom. There have been only a few systematic outcome investigations where short-term dynamic therapy has been compared to control conditions or other forms of therapy (Pilkonis, Imber, Lewis, & Rubinsky, 1984; Piper et al., 1984; Sloane, Staples, Cristol, Yorkston, & Whipple, 1975; Strupp & Hadley, 1979).

Outcome effects have generally favored short-term approaches when the comparison involves control conditions; when compared against other therapies, there have been few significant differences. One explanation for the absence of definitive or differential effects has focused on the considerable variability of outcome across patients treated in short-term dynamic therapy. Strupp (1980) persuasively argues in a series of single-case investigations that variability in treatment outcome is largely a function of patient characteristics. Treatment outcome may also vary as a function of the consistency and skill by which the therapist applies the techniques of short-term dynamic psychotherapy.

Interpretations are regarded as a central therapeutic ingredient in short-term, dynamically-oriented psychotherapy. However, it is recognized that interpretations sometimes facilitate patient work and other desirable therapeutic processes and sometimes do not. It can be assumed that change in dynamic therapy is more likely if a greater proportion of effective interpretations are provided, holding patient characteristics constant. Empirical knowledge of the contexts and technical aspects of interpretations which promote productive patient process would be extremely useful for practitioners. Identification of the characteristics of effective interpretations might also provide insights into the change mechanisms of short-term dynamic psychotherapy.

The phenomena under investigation in the present study are episodes of patient-therapist interaction in short-term, dynamically-oriented individual psychotherapy during which the therapist provides a psychodynamic interpretation. Process analysis of patient and therapist verbalizations during interpretation episodes was used to provide an understanding of the factors associated with and predictive of patient

work and other important response processes. The results lead to suggestions concerning when interpretations should be made and in what form, information that has direct practical relevance to the large number of mental health practitioners who conduct short-term dynamic psychotherapy with their patients. Methodological objectives of the study included the use of a set of process variables that are more comprehensive (verbal form, interpersonal intent, and verbal content dimensions) than those of previous process analysis studies, and the evaluation of important predictors (patient dynamic capacity, degree of dysfunction, therapeutic alliance) which have often been neglected in previous research.

Selection of interaction episodes was based on an independent and reliable identification of the therapist's provision of a psychodynamic interpretation. The patient's response to interpretation had also been independently rated as reflecting "work" or "nonwork" in analyses conducted as part of a controlled, clinical trial of short-term, dynamically-oriented individual (STI) psychotherapy. The present study was a multivariate exploration which aimed to highlight the characteristics of "work" versus "nonwork" episodes, and provide information about the prediction of patient response and the relationship of response aspects to therapy outcome. Analyses of episode characteristics included a) identifying differences in therapist behavior between "work" and "nonwork" episodes; b) identifying differences in patient process behavior prior to interpretation for "work" versus "nonwork" episodes; and c) identifying the dimensions of patient process behavior associated with the response to interpretation. Predictive analyses investigated a) the relationship between selected independent

variables (patient, therapeutic relationship, and episode characteristics) and dimensions of patient response to interpretation; b) the relationship between patient response dimensions and session outcome; and c) the relationship between patient response dimensions and therapy outcome.

PRESENT STATE OF KNOWLEDGE

Interpretation is generally considered to be the core of the psychoanalytic approach to psychotherapy (Bibring, 1954). There exists an extensive literature about various interpretive techniques, such as the proper content, timing, sequence, dosage, depth, and form of interpretations (Brenner, 1976; Garduk & Haggard, 1972). Despite its theoretical prominence, systematic investigations of the immediate or cumulative impact of interpretation in psychotherapy have been sparse.

Theoretical Perspectives.

Function of psychodynamic interpretation. Interpretive statements are technical maneuvers of the therapist that are designed "to convey information not in the patient's immediate awareness" (Claiborn, 1982, p. 440), or to "nam(e) the ongoing, most prepotent unacknowledged behavior at a given moment" (Paul, 1963, p. 268). In analytic terms, an interpretation attempts "to make conscious the unconscious meaning, source, history, mode, or cause of a given psychic event" (Greenson, 1967, p. 39). The immediate intent of interpretation is to "broaden the patient's awareness of his behavior" (Paul, 1963, p. 270) and "promote patient experiencing" (Claiborn, 1982, p. 440). The ultimate aim is to "enable insight and promote self-knowledge" (Hammer, 1968a, p. 3) and bring about "dynamic change" (Loewenstein, 1951) in the manner by which the individual regulates his needs for nurturance and approval within the constraints of society. Interpretation can promote change by facilitating

the replacement of unconscious by conscious processes, the resolution of unconscious conflicts, and the re-experiencing of conflicts with significant historical figures in the transference relationship to the therapist (Levy, 1984).

A psychodynamic interpretation performs three related functions (Colby, 1963; Claiborn, 1982; Hammer, 1968b; Paul, 1963; Rosen, 1977). First, interpretation performs a classification function by providing meaningful semantic labels for the patient's experience. Second, interpretation provides a causal explanation for the patient's symptom or behavior by linking events propositionally (see Claiborn, 1982, p. 443). Third, given the above, interpretation suggests directions for further patient exploration and inference.

One intent of the present study was to determine "the effects it (interpretation) has on our patients" (Strachey, in Richfield, 1963, p. 93). Stated alternatively, the intent was to assess "how it works when it works" (Colby, 1961, p. 363). A conceptual difficulty lies in assuming the effectiveness of a single psychodynamic interpretation, however correct (Loewenstein, 1951). Clinical experience suggests that it is the gradual process of preparation for and repetition of interpretation that results in lasting benefit (Brenner, 1976; Sandler, Dare, & Holder, 1971), i.e. it is the cumulative impact of interpretation that is crucial to change. However, "if the therapist's conjectures are reasonably correct, any interpretation . . is likely to be helpful in furthering a patient's knowledge about himself" (Brenner, 1976, p. 51). The present study avoided a narrow focus on single interventions by, first, selecting interpretation episodes from different points across the course of therapy and, second, developing a measure of interpretation adequacy in addressing

the patient's dynamic conflict(s) (i.e. "correspondence").

Requirements for psychodynamic interpretation. The primary consideration for the imparting of interpretation is the relationship context in which it occurs (Colby, 1963; Garfield, 1968; Hammer, 1968c). The relationship serves as a source for interpretations and is also enhanced by them. The patient's experience of being valued and helped by the therapist and of engaging in collaborative work on the problem at hand is a major determinant of how interpretations will be received and utilized (Luborsky, 1984). In turn, a helpful interpretation indicates to the patient that the therapist understands the patient's issues, thereby enhancing the alliance.

Noninterpretive interventions by the therapist "are either steps which lead to an interpretation or make an interpretation effective" (Greenson, 1967, p. 37). Noninterpretive interventions have been regarded as "preparations for interpretation" (Lowenstein, 1951) or as useful in refining the meaning of an interpretation (Greenson, 1967). The purpose of such interventions is to "facilitate the patient's communication . . . (and) communicate to the patient some observation derived from his associations, hoping that it may group or organize the material in such a way as to elicit additional material" (Lowenstein, 1963, p. 177). Noninterpretive interventions include questions (Eissler, 1958), "those interventions which have an educational effect on the patient" (Lowenstein, 1951, p. 2), "instructions" (Eissler, 1953; Paul, 1963), and, in particular, confrontation and clarification (Colby, 1963; Lowenstein, 1963; Greenson, 1967).

The majority of theoretical writings concern the technical craft of making interpretation. Three considerations appear predominant. First,

the interpretation should specify "what the patient is almost ready to see for himself" (Hammer, 1968c, p. 31). In effect, the interpretation should be slightly discrepant from preceding patient content in addressing aspects of the patient's conflict (Claiborn, 1982; Hammer, 1968c). Second, the interpretation should be accurate in addressing the central emotional concerns of the patient (Saul, 1963). Third, "insight in the patient is made possible only if interpretations contain words corresponding to some particular derivatives of his conflicts" (Loewenstein, 1963, p. 181).

Prompted by the review of theoretical criteria for psychodynamic interpretation, assessment of the following aspects was regarded as important in defining predictors of patient response for the present study: a) the quality of the therapeutic relationship as a context for interpretation; b) the nature of therapist interventions both prior and subsequent to the provision of an interpretation; c) the adequacy of the interpretation in addressing the patient's central conflict; and d) therapist references to the dynamic components of the conflict as embodied in the interpretation.

Aspects of patient preconditions to interpretation. The theoretical writings on psychodynamic interpretation are limited with regard to the nature of patient process immediately preceding provision of the therapist's intervention. Generally, reference is made to the patient's "psychic readiness" and capacity to make productive use of the interpretation (Devereux, 1963; Saul, 1963; Spero, 1977). Some (Greenson, 1967, p. 327) recommend that the patient be experiencing a manageable level of anxiety prior to receiving an interpretation. Without question, the context of the interpretation or how the patient is behaving when the

therapist delivers an interpretation moderates the effectiveness of the intervention (Rice & Greenberg, 1984a). By identifying the characteristics of preconditions which differentiate patient "work" from "nonwork" in the response to interpretations, the present study aimed to provide a clearer view of the patient "readiness" construct.

Aspects of patient response to interpretation. "An interpretation is meaningless as a one-sided act and acquires its full significance only through . . the effects it produces on the patient" (Loewenstein, 1963, p. 182). Several immediate effects of "correct" interpretations have been suggested: a) a decrease in anxiety or symptom distress and therapeutic resistance (Brenner, 1976; Colby, 1963; Claiborn, 1982; Hammer, 1968b; Isaacs, 1939; Paul, 1963; Saul, 1963; Snyder, 1968); b) the experience of surprise and increased affect, the latter often that labeled by the interpretation (Isaacs, 1939; Loewenstein, 1951; Saul, 1963); c) the emergence of content analogous to that of the interpretation and/or indicative of "relaxed defenses and a greater tolerance of instinctual derivatives" (Brenner, 1976, p. 58; see also Isaacs, 1939; Loewenstein, 1951; Paul, 1963); and d) an increase in insight (Loewenstein, 1951, 1963) or the self-observation of inner experience (Colby, 1961; Paul, 1963). The latter is regarded as important for the patient's confirmation or refutation of the interpretation and as decisive for the outcome of therapeutic work. Interpretations which are incorrect or inexact, premature, or "too correct" (i.e. difficult to assimilate completely; Snyder, 1968) are believed to elicit an increase in patient anxiety and resistance, greater silence, and more expressions of anger (Colby, 1963; Claiborn, 1982; Isaacs, 1939). Given that any number of patient responses to interpretation are considered likely, a

multidimensional approach to the assessment of patient process was adopted. The battery of process measures in the present study provided coverage of measures representative of anxiety, resistance, insight and self-observation, and additionally provided for the assessment of patient content references to dynamic material.

Empirical Studies of the Effects of Interpretation.

The few studies assessing the effects of interpretation can be divided into two general categories: studies which employ the process-outcome paradigm and relate the frequency or proportion of types of interpretation (i.e. cumulative impact) to therapy outcome; and studies employing the sequential-process paradigm, which assess whether different therapist behaviors are immediately followed by productive patient behaviors (i.e. in the next speaking turn). The latter category is subdivided further into analogue studies, field research studies, and clinical-quantitative investigations which are similar in design to the present research. Finally, recent studies which examine the importance of interpretation "accuracy" in facilitating positive therapy process and outcome are reviewed in a separate section.

The process-outcome paradigm. The focus of this research has been on the relationship between one type of intervention, namely, transference interpretations linking emotional responses towards the therapist with similar feelings towards parental figures (the T/P link), and outcome. Transference interpretations have historically been viewed as having the greatest potential to produce fundamental psychological change (Strachey, 1934). Malan (1976) was the first to report a significant correlation between high rates of transference interpretation and favorable treatment outcome, based on ratings of therapist process

notes and global measures of dynamic change. Marziali and Sullivan (1980), Marziali (1984), and Piper, Debbane, Bienvenu, de Carufel, and Garant (1986) sought to replicate Malan's finding while correcting for methodological flaws (e.g. making use of verbatim records of therapy and independent ratings of process and outcome). These attempts at replication have met with marginal (Marziali, 1984; Marziali & Sullivan, 1980) or no (Piper et al., 1986) success.

Relevance to the present investigation. The consensus is that such relationships may eventually be confirmed but that more extensive preliminary work, germane to the present study, is required: a) greater rigor and reliability in the identification of interpretation and the objects (persons) referred to by the intervention (Piper et al., 1986); b) examination of the patient's contribution preceding interpretation, the "suitability" of interpretation, and the influence of the therapeutic alliance on the receipt of interpretation (Marziali, 1984); and c) the assessment of what constitutes a positive patient response to interpretation (Marziali & Sullivan, 1980). The design and measures selected for the present study were chosen to fulfill each of these objectives.

The sequential-process paradigm.

Analogue (laboratory) studies. Analogue studies of the effects of interpretation are open to criticism due to the fact that conditions applied in the laboratory situation (e.g. reduction of extraneous complexity, use of volunteer subjects) do not generalize well to the environment of the therapy session. For example, some studies have assessed the effects of interpretations based solely on a research protocol and not on the contributions of the subject (Adams, Butler, &

Noblin, 1962; Timmons, Noblin, Adams, & Butler, 1961) or have had subjects take the role of nonparticipant observers of contrived counseling sessions on videotape (Claiborn, 1979; Dowd & Boroto, 1982). Analogue studies can also be faulted for inconsistencies in the definition of interpretation, e.g. as a statement discrepant from the subject's material (Claiborn, Crawford, & Hackman, 1983) versus a statement which includes "psychoanalytic content" (Adams et al., 1962). While a general problem in the psychotherapy research field, analogue researchers appear more likely to employ idiosyncratic effect measures in individual projects, complicating efforts to compile or compare findings across studies. The various methodological problems with analogue research on interpretation may account more for the mix of results than the technique itself (see Spiegel & Hill, 1989, p. 122-124).

Negative effects of interpretation have been exclusively reported in one analogue study. Helner and Jessell (1974) report more "attack feelings" in response to interpretation than reflection, advisement or interrogative, using the presentation of videotaped therapy vignettes across different age-level subjects. However, Claiborn (1982) has viewed the interpretation stimulus in this study as "closed-ended and accusatory" (p. 441) and perhaps as confounding hostility with interpretive intent. Mixed or conflicting results are more common in analogue research on interpretation. Colby (1961) describes a significantly greater effect for interpretations than questions in increasing subjects' verbal productivity and relevant topic and person references. In contrast, Kanfer, Phillips, Matarazzo, and Saslow (1960) found in a standardized interview condition that interpretations decreased verbal activity. The opposition of these findings may be due to confusion about sheer verbal output versus the

quality of the content in furthering the subject's understanding of a problem. Despite the apparent negative effect of interpretations, Kanfer et al. (1960) also report that subjects reported interpretations to be helpful and productive of self-exploration. Kanfer and Marston (1964) report no effects of interpretation on insight or "subjective exploration" but note that subjects preferred receiving interpretations relative to reflections when given a choice. Finally, there are a minority of analogue studies reporting positive effects of interpretation on openness and attitudes regarding change. Auerswald (1974) reports that interpretation was superior to restatement in "conditioning" subjects' "self-referent affect statements", i.e. interpretation increased responding and restatement decreased it. Strong, Wambach, Lopez, and Cooper (1979) and Claiborn, Wood, and Strong (1981) report that minimally discrepant interpretations led to decreased resistance and increased expectations for change among students requesting help with problems of procrastination. Claiborn et al. (1981) and Elliott, Barker, Caskey, and Pistrang (1984) report that counseling analogue clients found interpretation the most helpful intervention, particularly in the development of a new perspective on their problems.

Relevance to the present investigation. In summary, analogue studies of the immediate effect of interpretation provide marginal support for the perceived helpfulness of and subject's preference for interpretation and conflicting evidence for the effects of this type of intervention on verbal output, resistance, and insight or self-observation.

Field studies. Representative studies of the immediate effects of interpretation in the field provide somewhat more consistent

findings than have laboratory investigations. Speisman (1959) and Auld and White (1956) both provide evidence for decreased resistance and more exploration in response to "moderate" versus "deep" level interpretations. These results are supportive of the psychoanalytic principle of interpreting just beyond the limits of the patient's awareness (Paul, 1963) and are consistent with the analogue findings that moderately discrepant interpretations are more effective than those of marked discrepancy (Claiborn & Dowd, 1985; Claiborn et al., 1981). Frank and Sweetland (1962) report a decreased frequency of problem statements (complaints) and an increased use of insight statements (connections) subsequent to interpretations. Elliott et al. (1984), in a field replication of the analogue study, had therapy clients provide ratings of therapist interventions from a videotape of the immediately preceding session. Clients regarded interpretations as significantly more helpful than other interventions and particularly important to their development of problem understanding. In an examination of two cases of time-limited therapy, Hill, Carter, and O'Farrell (1983) report that therapist interpretation was associated with decreased patient description of the problem and increased Experiencing (Klein, Mathieu, Gendlin, & Kiesler, 1970) and insight. Hill, Helms, Tichenor, Spiegel, O'Grady, and Perry (1988) assessed the effects of various types of therapist intervention on patient process, session and treatment outcome. The authors report that therapists and patients concurred in ranking interpretation as one of the most helpful interventions. Additionally, interpretation was found to be positively associated with immediate change in patient Experiencing and to patient reports of "therapeutic work" reactions.

Relevance to the present investigation. Studies of sequential process conducted in the field generally support the positive effects of interpretation in reducing patient resistance and promoting problem insight.

Clinical-quantitative studies. Two investigations bear more detailed scrutiny, both in terms of design parallels and suggestions incorporated in the present study. Garduk and Haggard (1972) intensively studied the immediate effects of interpretations versus noninterpretations for four patients in long-term analytically-oriented or analytic psychotherapy. The five minutes of patient response following the intervention or intervention sequence was coded for verbal form (e.g. word counts, duration of silence) and rated for verbal content (e.g. presence of affect, reference to transference). Interventions were drawn in pairs from 15 randomly selected hours for each case. Results indicated that, with regard to form variables, patients responded more slowly and talked less (i.e. were more silent) following interpretations. In terms of content, interpretations elicited "more defensive and oppositional associations, more transference-related material, more understanding and insight, and more affect" (p. 60) than did noninterpretations. There are a number of methodological drawbacks to the Garduk and Haggard (1972) research: the small number of cases detracts from generalizability; the identification of interpretations was unsystematic and adjustment in data collection procedures was required to deal with longer therapist "sequences"; there was no assessment of the adequacy of interpretations selected; and content ratings were not operationalized, proved unreliable, and were restricted to use by trained analysts. The study nonetheless provides suggestive results deserving of replication and a foundation for

similar research of improved rigor.

Luborsky, Bachrach, Graff, Pulver, and Christoph (1979) compared patient material in 250-word segments before and after transference interpretations. The three, long-term analytic therapy cases had shown varying degrees of improvement. Process was rated on nine content dimensions by experienced analysts for each 50-word segment. Sixteen interpretations were selected from each case by independent analysts. Mediating individual difference variables were also accounted for in the design. Reliable before and after ratings showed that each patient had a different but consistent response to interpretation and that the positivity of response was predictive of treatment outcome. Ratings of process preceding the interpretation, the patient's symptom severity and "readiness to experience a helping relationship" (p. 399) were all predictive of response to interpretation. This important study can be criticized for the general definition of interpretation by which episodes were selected, the small number of cases involved, and the restriction of content variables to analytic constructs. The authors emphasize the need to assess the preconditions of interpretations, the importance of including the patient's symptom severity and experience of the helping relationship as covariates of interpretation response, and the usefulness of examining interpretations for adequacy in addressing the patient's central conflict.

Relevance to the present investigation. The present research built on the preceding two investigations in a number of ways. First, the design combined a contrast condition (successful versus unsuccessful interpretation episodes), after Garduk and Haggard (1972), and employed the Luborsky et al. (1979) repeated measure

(precondition-response) procedure. Second, the need for sophisticated clinical raters was obviated by the choice of reliable measures of relevant constructs capable of use by lay judges. Third, location of intervention episodes relied on a therapist behavior rating system that provided greater reliability and focus. Fourth, the assessment of the adequacy of interpretations was a central aspect of the study. Fifth, recommendations to assess important covariates (e.g. patient symptom severity and the quality of the therapeutic relationship) were incorporated into the design. Finally, the present study collected data from short-term dynamic psychotherapy where the therapist is likely to employ interpretation more readily and focally than in long-term dynamic treatment.

The "accuracy" paradigm.

Suitability studies. Recommendations noted above have prompted the recent development of a promising approach to studying the effects of interpretation. In this approach, interpretations are scored for their "suitability" to the individual patient, i.e. the degree to which the interpretation accurately addresses the patient's dynamic conflict. For example, according to control-mastery theory (Weiss, Sampson, & the Mount Zion Psychotherapy Research Group, 1986), a patient enters psychotherapy with a plan for solving problems. The patient's plan may be thought of as a strategy for disconfirming unconscious pathogenic beliefs by developing greater understanding of them in therapy and by testing them in the relationship with the therapist. If the therapist reacts differently from earlier significant figures associated with traumatic childhood experiences, the patient is reassured and pathogenic beliefs can be disconfirmed--resulting in good therapy outcome. If the

therapist fails the patient's tests, the pathogenic beliefs are confirmed and therapy outcome is poor. In the Mount Zion view, suitable interpretations are those by which the therapist passes the patient's test, i.e. the therapist does not replay the patient's childhood trauma. Silberschatz, Fretter, and Curtis (1986) hypothesized that the suitability of an interpretation would be a better predictor of in-session patient progress than type of intervention. Operationally, the suitability of the therapist's intervention was defined as its "compatibility" with an independently formulated "plan diagnosis" (Silberschatz, Curtis, & Nathans, 1989). The authors report that the compatibility of interpretations was a better predictor of immediate change in Experiencing than the category (transference or nontransference) of interpretation. Unfortunately, the Silberschatz et al. (1986) study involved only three cases of brief psychotherapy and the findings thus have only limited generalizability.

Crits-Christoph, Cooper, and Luborsky (1988) employed a similar methodological strategy by assessing the degree to which the therapist's interpretations accurately captured the patient's conflict as represented by an independently formulated "core conflictual relationship theme" (Luborsky, 1984). The objective in this study was to assess how well accuracy early in therapy predicted eventual treatment outcome. Accuracy was assessed for therapist interpretations from two early treatment sessions of 43 patients receiving "moderate-length" (average duration of 1 year) dynamic therapy. Accuracy on two of three aspects of the formulated conflict (i.e. wish and response from other) was shown to be positively associated with the outcome of dynamic psychotherapy.

Relevance to the present investigation. In the studies noted above, the standard for ratings of accuracy was an independent formulation of the patient's dynamic conflict. In the approach of the Mount Zion group, the formulation also acts as the clinical assessors' predictive model of the patient's behavior in psychotherapy. In neither study, however, is the therapist's case understanding employed as the criterion for interpretation accuracy. This omission is important, as interpretations provided to the patient are based on the therapist's synthesis of a provisional model of the patient's problem and the nature of the interaction between the two parties during the therapy session. The present study employed the therapist's initial conflict formulation as the standard for interpretation accuracy. Raters were asked to rate the "correspondence" (i.e. content match) between the conflict aspects and objects (persons) addressed by the interpretation, and characteristics highlighted as important to understanding the patient in the therapist's original formulation. The intent of including correspondence ratings was to assess whether interpretation accuracy based on the therapist's rough blueprint of the patient's problem would itself be predictive of patient response, in contrast to studies reporting an association where accuracy was based on formulations provided by a consensus of independent clinical assessors.

OBJECTIVES OF THE PRESENT STUDY

Episodes of patient-therapist interaction represented the clinical material for the present study. Episodes were constructed around a independently and reliably identified interpretation by the therapist; precondition and response segments consisted of additional therapist interventions and the patient's verbalizations leading up to and following

the target interpretation. Patient material in the response segment had also been independently rated as reflecting the presence of "work" or "nonwork". The "work" ratings were employed as a means of classifying the "success" of the interpretation episode. Ratings of patient process and interpretation correspondence represented the data collection aspect of the study. Additional measures of patient and therapeutic relationship characteristics were drawn from the information collected as part of a controlled, clinical trial of the therapies in which the episodes were embedded (see Piper, Azim, McCallum, & Joyce, 1990). The objectives of the present study can be put into the form of five exploratory empirical questions.

First, what therapist behaviors prior to, as part of, and following the interpretation are associated with "work" versus "nonwork" in the patient's response (i.e. "success" versus "non-success" of the episode)? Analyses following from this inquiry would suggest the most effective approach to preparing the patient for interpretation, presenting the therapist's conjecture about the dynamic conflict, and refining the patient's understanding of the interpretation's meaning. Alternatively, it was hypothesized that a) therapist activity during the precondition segment of "work" episodes would reflect a "preparation for interpretation", i.e. a greater use of questions, directives, clarifications, and confrontations; b) interpretations which were "minimally discrepant", i.e. made reference to <u>fewer</u> aspects of the patient's conflict, would have a stronger association with "work" in the patient's response; and c) therapist activity during the response segment of "work" episodes would reflect an effort to extend the interpretation, i.e. a greater use of clarifications.

Second, what patient behaviors prior to the receipt of the interpretation are associated with "work" versus "nonwork" in the patient's response (i.e. "success" versus "non-success" of the episode)? Identification of the precondition process variables which best discriminated responses on the "work" dimension would serve to define the construct of patient "readiness" for interpretation. Alternatively, it was hypothesized that patient precondition behavior associated with "work" responses would reflect greater openness to subjective experience, and an emphasis on developing a psychodynamic understanding of this experience.

Third, beyond a general classification of "work" versus "nonwork", what are the underlying dimensions of the patient's response to interpretation? The precondition-response design allowed the derivation of scores representative of change in patient process associated with the provision of interpretation. Analyses oriented to understanding how the various process variables clustered together would provide for a multidimensional portrait of the immediate impact of the therapist's interpretation. Alternatively, it was hypothesized that dimensions reflecting patient anxiety, resistance, self-understanding, and use of psychodynamic content would represent major constituents of the response to interpretation.

Fourth, what characteristics of the patient, the therapeutic relationship, and the interpretation episode itself are important in predicting aspects of the patient's response to interpretation? Predictive analyses conducted in the present study followed recommendations outlined above in employing measures of the patient's symptom severity, quality of interpersonal relationships, and capacity for dynamic therapy as predictors of response to interpretation. Simple

measures of the therapy alliance were also employed to assess the influence of the patient-therapist relationship on the impact of interpretation. Additionally, the rating of correspondence between the interpretation and the therapist's original conflict formulation represented both a measure of interpretation quality and an episode-level predictor of patient response. Alternatively, it was hypothesized that significant predictors of the response to interpretation would include a) patient characteristics reflecting the capacities both to use the relationship with the therapist, and approach problems from a psychological perspective; b) the therapeutic alliance; and c) the "accuracy" of interpretation references to aspects of the patient's dynamic conflict.

Finally, how important are the different aspects of patient response to the prediction of session and/or therapy outcome? Patient and therapist session evaluations and outcome factors based on patient, therapist, and independent assessor ratings were available for each case included in the present study from the controlled trial of STI therapy. Assessment of the relationship between dimensions of patient response and measures of intermediate or ultimate therapy outcome would indicate which dimensions are important or detrimental to progress and benefit in this form of therapy. Alternatively, it was hypothesized that those dimensions of the patient's response which reflected an immediate, in-session change in self-presentation or problem understanding would be significantly associated with session and/or therapy outcome.

METHODS

The procedures for collection and preparation of the episode data for analysis were numerous and complicated. Figure 1 provides a diagrammatic overview of the methods employed in the present study.

Insert Figure 1 about here

SAMPLING CONSIDERATIONS

Setting, Patients, Therapists, and Therapy.

Setting. A controlled, clinical investigation of patient suitability and outcome for short-term, dynamically-oriented individual (STI) psychotherapy was used as a resource for episode material. Patients involved in the STI project had been referred from the Walk-In Clinic of the Division of External Psychiatric Services, University of Alberta Hospitals and University of Alberta, Edmonton. The Division is a large multifaceted psychiatric outpatient service located within an 800-bed university hospital. About 200 initial assessments are conducted in the Clinic each month by one of 15 assessors who arrive at an initial diagnosis in consultation with a staff psychiatrist. Most patients assessed in the Clinic are offered a different form of treatment (e.g. group therapy, medication) or are referred outside the Clinic. Approximately six patients per month (3% of all assessments) were directed to the STI project during the referral period of the study. A total of 144 referrals were made to the project. Nineteen patients dropped out of the protocol prior to treatment assignment.

The STI research coordinator matched patients in pairs on the basis of a clinical interview assessment of the patient characteristic "quality of

object relationships" (QOR; i.e. two highs or two lows), sex, and age. The coordinator then randomly assigned one member to an immediate therapy condition and the other member to a delayed therapy control condition, with both cases being assigned to one of the project therapists. Eleven (18%) immediate condition and nine (6%) delayed condition patients dropped out during the first five months and did not provide post-therapy or post-delay outcome data. The remaining 105 patients (48 immediate, 57 delayed) served as the primary sample for the treatment versus control comparisons. Nine delay patients subsequently dropped out of their post-delay therapies. A total of 86 patients completed the entire therapy protocol. Sixty patients randomly selected from this pool of completers were employed as the source of interpretation episode material. Additional rationale for the selection of these cases is presented below.

Patients. Of the 60 patients used as the sample for episode data, 93% received Axis I diagnoses according to the Diagnostic and Statistic Manual of Mental Disorders (DSM-III, American Psychiatric Association, 1980). Most were Adjustment (28%), Affective (22%), Anxiety (7%), or Impulse Control (7%) Disorders. Two-thirds of the patients diagnosed with Affective Disorders presented with a major depression. In addition, 28% of the sample received Axis II diagnoses, most being Dependent (13%) or Avoidant (5%) personality disorders. The patients' target objectives had revealed difficulties commonly encountered in outpatient samples, i.e. concerns regarding depression, anxiety, self-esteem, and interpersonal functioning. The average age of patients in the episode sample was 32.2 years (SD = 7.8, range = 17 to 53). Forty-seven percent were women. Slightly over half the sample were married or living with a partner, approximately one-third had never been

married, and the remainder were separated or divorced. Eighty-seven percent of the patients were employed or in school and 71% had received education beyond high school.

The 60 patients selected to provide episode data were compared to the remaining 26 STI therapy completers on DSM-III diagnosis, demographic characteristics, and initial level of disturbance on the outcome variables of the project (see Piper et al., 1990). There were no significant differences, indicating that the episode sample was a representative cross-section of the larger sample of therapy completers.

Therapists. There were eight therapists involved in the STI project (three psychiatrists, one psychologist, four social workers). Half were female. The therapists' average age was 40 years and they had practised individual therapy for an average of 11.5 years (SD = 9.9, range = 4 to 35). Each therapist served as his/her own control by treating equal numbers of patients in the four cells of the two (treatment vs. control) by two (high QOR vs. low QOR) design. For the episode sample, four therapists provided 6 cases, two therapists provided 9 cases, and the remaining two therapists each provided 8 and 10 cases, respectively.

Therapy. The treatment contract specified a maximum of twenty once-weekly sessions of 50 minutes duration. The average number of sessions attended by treated patients was 18.6 (SD = 2.1). According to the psychodynamic orientation, the therapist attempted to clarify the patient's underlying conflicts as differentiated from his/her presenting complaints. An early task of the therapist was to construct a problem formulation which outlined a repetitive conflict involving similar objects that resulted in similar maladaptive outcomes. During therapy, the patient's conflict was explored across the patient's current external

relationships, the immediate relationship with the therapist, and past relationships with significant persons (i.e. the triangle of conflict; Malan, 1976). The STI orientation resembled approaches to short-term individual psychotherapy described by Malan (1976) and Strupp and Binder (1984). The technical manual formulated for the STI project utilized these sources and emphasized interpretation relative to support, in particular the interpretation of transference.

Therapy sessions were audiorecorded. To facilitate understanding and use of the STI manual, therapists attended a weekly seminar where session material was played and technical issues were discussed. To verify the integrity of the treatment provided during the controlled trial, a content analysis of therapists' interventions was conducted using the Therapist Intervention Rating System (TIRS; Piper, Debbane, Bienvenu, & de Carufel, 1987; see below for details). All therapist statements from eight sessions (numbers 4, 7, 9, 11, 14, 16, 18, and 20) were analyzed for 64 patients (two randomly selected patients from each of the four cells of the design for each of the eight therapists). Therefore, a careful examination was made of a total of 512 sessions; this figure represents slightly under one-third (32.0%) of all sessions (1600) recorded for the 86 STI therapy completers. The average number of interventions (i.e. therapist speaking turns) per session was 44 and the average number of interpretations was 11. Interpretations represented over one-half of the therapist's speaking time. The average number of transference interpretations was 4.4, or 39% of all interpretive interventions. The analysis indicated that the therapists were active, interpretive, and transference-oriented in their application of the STI model--as was intended.

The STI therapy was responsible for statistically and clinically significant improvement on a number of known measures of therapy outcome (Piper et al., 1990). The study also provided evidence for an additive effect associated with the combination of treatment and the patient characteristic QOR. The most improvement was shown by high QOR therapy patients, and the least improvement was shown by low QOR control patients. The results of this investigation suggested an optimal match between type of patient (high QOR) and type of therapy (interpretive and insight-oriented).

Episode Selection.

Overview. As noted, eight audiorecorded sessions across treatment were subjected to ratings on the TIRS. The TIRS served as a reliable means of identifying interpretations for the present study. In the content analysis conducted as part of the STI project, identification of therapist interpretations was followed by a rating of the first minute of subsequent patient material on the Patient Response to Interpretation Scale (PRI). The PRI was used to categorize the patient's response as reflecting "nonwork" or one of three categories of "work". The two rating systems served to indicate the occurrence of an interpretation episode and to classify the "success" of the interpretation episode, respectively.

Selection criteria. The TIRS (Piper et al., 1987) permitted the identification of therapist interpretations used as target interventions in the present study. The TIRS places each therapist intervention (speaking turn) into one of ten categories ranging from simple facilitative remarks to complex interpretations of internal conflicts (see Appendix I). Categories 1-5 concern noninterpretive comments (e.g. information-providing comments, requests for information, directives).

Category 6 concerns any of the noninterpretive interventions which also address resultant expressions (i.e. patient affects, cognitions, or behaviors) and/or objects (i.e. other persons in relationship with the patient). Categories 7-10 refer to interpretations, i.e. interventions which address one or more dynamic components. A dynamic component is defined as one part of a patient's conflict which exerts an internal force on some other part of the patient. Dynamic components considered by the TIRS include wish, anxiety, defense, and dynamic expression. Dynamic expressions are those patient affects, cognitions, and behaviors that internally influence the patient, e.g. "You bought her a gift <u>because</u> you felt guilty". The TIRS also provides a count of the objects (persons) and object links referenced in the intervention. The set of possible objects includes father, mother, parents, siblings, family, therapist, other real persons (e.g. spouse), and unspecified groups of people (e.g. doctors). To score an object, the intervention must indicate the process in which the patient and object are engaged or the relationship (impact) between the two. A transference interpretation is operationally defined as an interpretation that includes a reference to the therapist. Qualitatively, transference interpretations address aspects of a dynamic conflict involving the object (person) of the therapist.

Reliability assessment in the context of the STI project provided evidence for substantial interrater agreement in use of the TIRS categories. A total of 40 sessions, one from each of 40 patients at different stages of STI, were coded according to the TIRS during the data collection phase of the project. Five raters were involved in TIRS ratings. All were female graduates in psychology who had received a standardized didactic introduction to psychodynamic theory and a basic

overview of the STI approach. The raters were thus "naive" in terms of clinical experience but not uninformed regarding important theoretical foundations. Sessions were coded by two raters working independently; each pair of raters was equally represented in the reliability assessment. The average percent perfect agreement at the level of the general category, intervention by intervention, was 79% (range = 43-90%) and an average kappa coefficient of $\underline{k}$ = .66 was attained (range = .39-.83). Interrater agreement that an interpretation had been made (4 of the 10 TIRS categories) was quite adequate at 90% (range = 74-100%). High interrater reliability on the interpretation versus noninterpretation distinction was evidenced by an average kappa coefficient of .74 (range = .35-1.00). The interrater reliability of object ratings at the level of the session had also been checked in original work with the system (see Piper et al., 1987). Pearson correlation coefficients were calculated for each object, the data being the frequency percentages for that object in each of 15 sessions. The average correlation was .90 (range = .71-.99).

The first criterion used for selection of episodes from session material required that the target interpretation had received a TIRS code no higher than category 7 or 8 (single or double dynamic interpretations). Interpretations receiving a TIRS category rating of 9 or 10 (triple or quadruple dynamic interpretations) occurred infrequently across the therapies and were not regarded as representative of therapists' "usual" interpretive style. However, because of occasional misapplication of the selection criteria the final sample included 16 episodes (1.5%) with a target interpretation of category 9 and 2 episodes (0.2%) with an interpretation of category 10.

An episode was defined as the two minute segment prior to the selected

interpretation (the "precondition"), the interpretation itself, and the two minute segment subsequent to the interpretation (the "response"). Therapist speaking turns coded as interpretations varied in duration; the average length of interpretations included in the final sample (see below) was 22.9 seconds (SD = 22.1 seconds, range = 1 to 170 seconds). Two additional criteria were applied to episodes defined in this manner. First, the two minutes prior and subsequent to the target interpretation each had to include at least one minute of patient verbalization material. This criterion was based on the requirement posed by particular systems used to rate patient process (e.g. the Experiencing Scale). Second, no other therapist interpretive comments were permitted within either precondition or response segments. Exceptions to this rule occurred if another interpretation occurred early or late enough in the episode to still allow for one minute of patient speaking time in each of the two segments. (It was thus possible that distinct episodes included similar material, i.e. the response segment of one episode comprised the precondition segment of another episode. This occurrence was, however, an exception during episode selection.) Other TIRS category interventions (categories 1-5), including those referencing objects and/or resultant expressions (category 6), were permitted in precondition and response segments provided the requisite patient speaking time was available. Episode identification proved to be highly reliable using the stated criteria. The TIRS codesheets and audiotaped material for 8 sessions from an STI patient not included in the episode sample was presented to the four raters for extraction of suitable interpretation episodes. (The raters employed in the present study are described in greater detail in a subsequent section.) All episodes identified by each rater as meeting the

selection criteria were included in the reliability determination. The average percent perfect agreement on identification of criterion episodes across all pairwise combinations of raters was 85% (range = 79-90%).

In the process analysis conducted as part of the STI project, therapist interventions categorized as TIRS categories 7-10 were followed by timing of response latency and ratings of the first minute of patient response on a "nonwork-work" dimension, the Patient Response to Interpretation Scale (Joyce, Piper, McCallum, & Azim, 1988; see Appendix II). For episode selection, a necessary assumption was that "work" or "nonwork" identified for the first minute also characterized the second minute of the patient response segment. The PRI scale defines three criteria, all of which must be met for the patient's response to be considered "work": a) the patient must preserve a focus on him/herself; b) the patient must preserve a focus on the meaning of the interpretation; and c) the patient must add something important to what is conveyed by the interpretation. In essence, patient responses which remain "on topic" and contribute to issue exploration are regarded as representative of "work". Responses which fail to meet all criteria are categorized as "nonwork" or avoidance. The material added in a work response determines one of three work categories. Descriptive Work provides additional detail or documentation about circumstances involving the patient. Relational Work provides information on additional objects (i.e. linking responses) or situations (i.e. descriptions of the pervasiveness of patterns) that represent a similar dynamic relationship for the patient. Dynamic Work provides information about additional components of the patient's dynamic conflict (i.e. wish, anxiety, defense, or dynamic expression); the rater is also required to identify the added dynamic component(s). Reliability

determinations were conducted for the PRI measure on the same sample of 40 independent sessions employed in the assessment of treatment integrity described above. Both interrater agreement and reliability were calculated on a response by response basis over the 40 sessions. The procedure for the kappa coefficient outlined by Fleiss (1971) was used in the determination of interrater reliability. For both the general ("nonwork-work") and specific (Descriptive, Relational, or Dynamic Work versus all other categories) rating designations, a simple binomial judgement was required. Given the judgement of one rater, the second rater could be in agreement 50% of the time by chance alone. The kappa coefficient adjusts for agreement due to chance; attaining coefficients indicative of high reliability in this context proved difficult. In terms of the general classification, 58.4% of the 814 rating assignments (two raters by 407 interpretations) were categorized as evidencing "work". The percent perfect agreement on work ratings was 74.3%. "Nonwork" made up 41.7% of all categorizations; the percent perfect agreement for nonwork was 63.5%. For all ratings, percent perfect agreement attained 69.8% and the overall kappa coefficient was .38 ($p < .01$). Breaking the ratings down by specific categories indicated large differences in the base rates for each type of work. Descriptive Work accounted for 34.8% of all categorizations, Dynamic Work 17.7%, and Relational Work only 5.9%. Percent perfect agreement on the three categories was moderate: 45.8% for Descriptive Work, 45.8% for Relational Work, and 51.3% for Dynamic Work. The kappa coefficients for Relational (.42) and Dynamic (.41) Work were significantly greater than chance ($p < .01$); the kappa for Descriptive Work (.17) failed to pass the significance criterion ($p = .10$). Given the high proportion of category assignments made to the Descriptive Work

category and the subjectivity involved in determining whether the patient's material provided significant additional detail to the focus of the interpretation, the low reliability for this category is perhaps not unexpected. In fact, disagreements between nonwork and Descriptive Work made up 63.4% of all disagreements recorded in use of this category. Further, in application the three work categories did not prove to be mutually exclusive; responses which provided evidence of both Relational and Dynamic Work were doubly categorized. Although the reliability coefficient for the "nonwork-work" distinction was low (see above), the level of interrater agreement (approximately 70%) for this general judgement was regarded as satisfactory (Kraemer, 1981). Episodes entered into the sample for the present study were thus independently classified by the PRI ratings as generally being "successful" ("work" responses) or "unsuccessful" ("nonwork" responses). The less reliable categorizations of "work" were available for exploratory analyses.

Final sample. As noted, a total of 60 cases were selected from the pool of 86 STI patients who had completed the entire therapy and research protocol. The selection of cases was random with the only qualification being that the patient sample included fifteen cases from each of the four cells determined by suitability for STI therapy and treatment condition (i.e. high QOR, immediate therapy; high QOR, wait-list control; low QOR, immediate therapy; and low QOR, wait-list control), i.e. that the cases selected provided for balance with regard to the independent variables utilized in the controlled trial. Episode selection from the 8 audiorecorded and rated sessions from each patient resulted in a sample of 1081 episodes. The figure represented an average of 18 episodes per patient (SD = 3.0, range = 9 to 20). Table 1 presents the

total number of interpretation episodes in the sample broken down by phase of therapy [early (sessions 4, 7 or 9); middle (sessions 11, 14, or 16); or late (sessions 18 or 20)] from which the episodes were selected, episode differentiation on the dimension of "nonwork-work", and the QOR and treatment condition designation of the case.

Insert Table 1 about here

To assess whether the episode sample was balanced with regard to the above dimensions, chi-square analyses were conducted on the frequency of both work and nonwork episodes selected for the sample. The three classification variables were QOR (high versus low), condition (immediate versus delay), and phase of therapy (early, middle, or late). Chi-square calculations were conducted for the frequency across categories of each classification variable and for the three two-way and one three-way cross-tabulations. Only a single chi-square value attained significance; phase of therapy was significantly associated with the number of work episodes selected. Use of the selection criteria had provided for a significantly greater number of work episodes from middle and late as opposed to early therapy sessions ($X^2 = 20.30$, $df = 2$, $p < .001$). The chi-square analyses indicated that the episode sample was well balanced across the dimensions of patient QOR, treatment condition, and time in therapy.

As noted above, an analysis of the TIRS data from 64 patients provided support for the integrity of treatment provided by STI project therapists. Fifty-one of these 64 cases had been included in the episode sample. The STI process analysis allowed for a comparison of the

patient's performance in therapy as a whole with the patient's "work" behavior as represented in the episode sample. The representativeness of the episode data was checked by comparing the proportion of nonwork and work episodes available from the entire therapy for these 51 cases versus the proportion obtained for the episode sample. Chi-square tests were conducted at the level of the individual case and for each of the four cells in the design. The proportion of nonwork:work episodes selected for the episode sample was significantly different ($p < .05$) from the proportion seen for therapy overall for only five of the 51 cases. At the design level and aggregating the number of episodes across cases, there were no significant differences in the proportion of nonwork:work episodes between the episode sample and therapy as a whole for any of the four cells in the design. The episode sample was thus considered highly representative of each patient's level of work during therapy as a whole; differences which emerged in the contrast between the episode sample and the therapy overall for individual cases could be regarded as due to chance.

MEASURES

Patient Process Rating Measures.

Overview. A major aim of the present study was to employ a comprehensive battery of process measures to assess patient material prior and subsequent to the therapist interpretation. Comprehensiveness in this context refers to adequate coverage of multiple dimensions of the patient's verbalization. One basis for the selection of patient process rating categories was Russell and Stiles' (1979) typology of language analysis systems. Three perspectives on rating speech (i.e. content, intersubjective, and extralinguistic categories) and two approaches to

coding (i.e. classical and pragmatic strategies) define the typology. Content categories concern the patient's denotative or connotative semantic content and are used to tap internal psychodynamic processes. Intersubjective categories concern syntactically implied and other relationships between the speaker and listener, and can be employed to identify interpersonal roles and relationships in therapy. Extralinguistic categories concern vocalizations (noises without the structure of speech), qualifiers (pitch, rhythm, resonance), and aspects of the temporal patterning of speech (duration and latencies), and prove useful in tracking the transitory emotional states of the patient. The two coding strategies may be used with each of the three measurement categories. The classical strategy involves a noninferential characterization of the text of the patient's verbalization, while the pragmatic strategy involves an inferential characterization of the speaker or the speaker's state. Table 2 presents the measures of patient process employed in the present study according to the Russell and Stiles (1979) typology. The selection of process measures provided representatives for five of the six language analysis systems defined by the typology. A decision to limit rating demands meant that a classical measure of the intersubjective perspective was excluded from the battery.

Insert Table 2 about here

Two other considerations influenced selection of the process rating measures. First, measures had to be relatively established, reliable and valid indicators of relevant constructs, and capable of being used by clinically unsophisticated judges. The rationale was to remove any

dependence on expert clinicians as raters. Use of expert clinicians was not economically feasible. Employing raters of minimal clinical training and/or familiarity would help guard against those particular biases due to theoretical orientation or experience. Procedures to guard against other forms of bias (e.g. halo effects) are described below. Second, the battery was designed to provide an assessment of constructs both specific and nonspecific to a psychodynamic approach to psychotherapy. The rationale in this instance was to provide a broader test of theory regarding the impact of interpretation and possibly extend the generalizability of the findings to other forms of psychotherapy.

Speech Disturbance Ratio and extralinguistic measures. A measure of state anxiety was derived from a modification of Mahl's (1956, 1959) "non-ah" or Speech Disturbance Ratio (SDR). The modification involved drawing from the work of Mahl (1956, 1959; Kasl & Mahl, 1965), Dibner (1956) and Krause and Pilisuk (1961) on similar measures of speech disturbance, selecting those categories which cut across the different systems and were capable of being rated reliably. Working from audiotapes, the rater uses the modified SDR system to record six types of speech disturbance: sentence Corrections, Fragments, and/or Repetitions; Distortions of and/or Breaks in content; and/or noncontent Intrusions (see Appendix III). The SDR is the number of disturbances divided by the duration of patient speaking time in the segment and multiplied by a constant (60 seconds); the SDR thus reflects the number of speech disturbances per minute. A total disturbance ratio, summing over all categories except Intrusion (i.e. content disturbances), is also calculated. Previous work with Mahl's (1959) SDR system yielded high values for both interrater (.94) and intrarater (.96) reliability.

Construct validation efforts indicated that SDRs significantly discriminated anxious from defensive phases in psychotherapy sessions (Mahl, 1956, 1959), or between interview conditions in an experimental design where one condition was designed to elicit anxiety (Kasl & Mahl, 1965; see also Cook, 1969; Pope, Blass, Siegman, & Raher, 1970). Convergent validity was indicated by positive relationships between SDRs and physiological indices of anxiety (Kasl & Mahl, 1965), while discriminant validity was shown in the lack of relationship with measures of trait anxiety (Cook, 1969).

Six additional extralinguistic measures were calculated from timed recordings of the episode segments. "Thought units" were operationalized as a) distinct units of patient speech comprising grammatical subject, object, and verb functions; b) associated with distinct breaks in speech flow or content; and c) serving to express a complete, independent thought. ("Thought units" were the unitizing measure employed for the speech rate measure, Vocal Quality tally ratings, and tabulation of patient "verbal response mode" usage; see below.) Speech rate and the silence quotient are two verbal form measures that have been related to the expression of affect (Kasl & Mahl, 1956; Pope et al., 1970). Speech rate was defined as the number of "thought units" provided by the patient divided by the number of seconds spent speaking during the segment. The silence quotient was calculated as the ratio of the total duration of segment silences over the total duration of the segment. Pope et al. (1970) report that free speech monologues by psychiatric patients independently rated as reflecting anxiety were significantly related to a high speech rate and a low silence quotient, while depressed free speech was conversely related to a low speech rate and high silence quotient.

Two slightly different measures of speech and silence were calculated to reflect the "saliency" (i.e. motivational importance) of content expressed by the patient (Jackson, Weins, Manaugh, & Matarazzo, 1973; Manaugh, Weins, & Matarazzo, 1970). The proportion utterance was defined as the time spent speaking divided by the total duration of the segment. Mean latency was calculated as the ratio of the total duration of silences over the number of pauses in the segment. In the studies referenced, proportion utterance values increased and mean latency decreased when subjects discussed subjects of high saliency. Finally, the number and duration of patient communications (i.e. blocks of patient speech demarcated by pauses and/or therapist interventions) during each segment were also recorded.

The SDR and speech/silence variables are extralinguistic measures assessed via a classical strategy (see Table 2).

Vocal Quality categories. The Vocal Quality (VQ) system (Rice & Kerr, 1986; Rice, Koke, Greenberg, & Wagstaff, 1979) is oriented to vocal qualifiers (pitch, rhythm, energy level) and "designed to assess the quality of the (patient's) involvement in the therapy process" (Rice et al., 1979, p. 1). The VQ system represents an extralinguistic measure assessed via a pragmatic strategy (see Table 2). Raters attend to the "stylistic qualities" of the patient's speech, work from audiotapes and classify utterances into one of four nominal categories of vocal quality. Each category describes a different vocal pattern, distinguished on the basis of six features of speech output. Appendix IV presents the four categories of VQ (Focused, Externalized, Limited, and Emotional) and the features defining each pattern. The rater codes each "thought unit" in the segment; the summarizing unit was the proportion of tallies assigned

to each category for the segment as a whole. The alternate approach presented in the manual (Rice et al., 1979) calls for the assignment of a nominal category rating for the segment as a whole. Previous studies employing the VQ system report average interrater reliabilities of .75 using the tally rating approach (Rice & Wagstaff, 1967) and a kappa coefficient of .49 for adjusted perfect agreement on the nominal segment rating (see Rice & Kerr, 1986). There is evidence to support the predictive validity of the system. Focused VQ has been shown to predict therapy outcome as early as the first interview, while the Externalized and Limited patterns have been associated with relatively unproductive therapy process (Butler, Rice, & Wagstaff, 1962; Rice & Wagstaff, 1967). Recent work (Greenberg, 1984) has established Focused VQ as a useful marker of problem resolution for critical incidents in therapy sessions (see also Wexler, 1974).

The Experiencing Scale. The Experiencing (EXP) Scale (Klein, Mathieu, Gendlin, & Kiesler, 1970; Klein, Mathieu-Coughlan, & Kiesler, 1986) assesses a construct which has been described as similar to the analytic concepts of "insight", "lack of resistance" and "working through" (Kiesler, 1973). Lower levels on the scale are marked "by the blockage of internal communication and an avoidance of feelings or conflicts" while progressively higher ratings reflect the degree to which "the patient communicates his personal, phenomenological perspective and employs it productively in the therapy session" (Klein et al., 1970, p. 1). The EXP Scale is thus a content measure employing a pragmatic coding strategy (see Table 2). The scale is a 7-point annotated and anchored rating device designed for applications to audiorecorded segments of therapy interviews. Appendix V presents both the detailed long and short forms of

the EXP Scale. The authors (Klein et al., 1970, p. 34) indicate that "the discriminatory power of the ratings is independent of the length of the segment". Two EXP ratings are provided by judges: a modal rating characterizes the average scale level and a peak rating is given to the highest scale level attained in the segment. Reliabilities in a number of research applications have ranged from .76 to .91 for modal values and .75 to .92 for peak values. Ratings of successive segments drawn from the same case have tended to be of lower reliability (.61 to .87), perhaps due to problems with halo effects, as have ratings done using only the short form of the scale (.48 to .85; see Klein et al., 1970, p. 44-45 and Klein et al., 1986, p. 35-39). Research with the EXP Scale (Kiesler, 1973; Klein et al., 1970; Klein et al., 1986) supports the validity of the measure both in discriminating therapy functioning between patient diagnostic groupings and in predicting outcome from patient behavior within and across sessions.

The Patient Content Reference System. Patient content in precondition and response material was classified according to the Patient Content Reference System (PCRS), a multidimensional rating device developed for use in the present study. The PCRS first requires that the rater identify the "verbal response modes" (VRM; Stiles, 1978, 1979) used by the patient in the segment. A response mode is a category of language that implies a particular interpersonal intention. Stiles' (1979) taxonomy identifies eight exclusive response mode categories: Disclosure, Question, Information, Acknowledgment, Advisement, Assumption, Confirmation, and Reflection. Each mode has a characteristic grammatical form and interpersonal intent which may or may not coincide. Both form and intent of each utterance can be coded. For example, the statement "I

need help" is a disclosure in form reflecting personal discomfort. The intent of the statement may be a disclosure or an advisement for the other to respond to the need implied in the utterance, i.e. to offer assistance. The PCRS required that raters attend only to the intent of each "thought unit". The VRM rating task of the PCRS thus represents an intersubjective measure assessed via a pragmatic strategy (see Table 2). Summary response mode codings referred to the proportion of each intent for the segment. Employing the VRM form categories would represent an assessment of intersubjective material from the classical strategy but would also require raters to reliably distinguish all possible combinations (64) of response mode form and intent. To limit rating demands, the VRM form categories were dropped from the battery of patient process measures. Pairwise agreement between independent coders has averaged 85% in previous work with the taxonomy (Stiles, 1978). The VRM system has shown promise in differentiating approaches to psychotherapy (Stiles, 1979), depicting patient response mode use in therapy (Stiles & Sultan, 1979), and identifying the relationships between response modes and levels of EXP in therapy sessions (Stiles, McDaniel, & McGaughey, 1979).

Other rater tasks required by the PCRS are a reflection of the therapist content reference judgements made with the TIRS. Raters identify patient references to four dynamic components: wish, anxiety, defensive processes, and dynamic expressions (i.e. patient affects, behaviors and cognitions described in pairs and related causally). Raters were not required to infer from the patient's material the unconscious dynamic component being addressed; instead, the patient was required to make an explicit reference to the conscious derivative of the component

for categorizations to be assigned. The rationale was to identify patient segments where dynamic material is being explored as a precursor or response to therapist interpretations (Reynes, Martindale, & Dahl, 1984). Finally, the PCRS also requires that the rater record all patient references to objects and object links in the segment. The PCRS categorization of patient references to dynamic components and objects represents a content measure assessed via a classical strategy (see Table 2). This aspect of the PCRS also represented a first step to developing a new measure of patient in-session activity. A separate validation study of the PCRS was not conducted. Consequently, the findings of the present investigation are also the only indications available regarding the validity of the system (see Beutler, 1989). The procedures required by the various PCRS rating tasks are presented in Appendix VI.

Interpretation Correspondence Rating Measure.

As noted, an early task of the STI therapist was to provide a written formulation of the patient's problem which outlined a repetitive conflict involving similar objects that resulted in similar maladaptive outcomes. The formulation was prepared by the therapist following the second therapy session. Therapists had not been systematically trained to provide formulations according to specified criteria. All therapists in the Clinic, however, routinely provide etiological formulations on new assessments which are subject to supervisory review. The variability evident across formulations obtained in the STI project required that a more systematic content analysis be applied. The formulation for each case included in the present sample was broken down by the principal investigator into the main components of wish, anxiety, defense, maladaptive outcome, and important objects. Appendix VII presents the

instructions for the breakdown procedure. Reliability of the procedure was assessed through comparisons of the formulations for twelve randomly selected cases each broken down by two clinical judges. The level of agreement shown for the identification of each component between the principal investigator and each of the reliability judges was rated independently. The agreement rater assessed the "percent overlap" evident for each component across each pair of formulations. Agreement averaged across pairings was substantial: for wish, 89% (range = 84-93%); anxiety, 91% (range = 81-100%); defense, 75% (range = 63-81%); maladaptive outcome, 82% (range = 79-88%); and objects, 92% (range = 89-96%).

The correspondence rater was required to assess the degree of content match between the dynamic component(s) and object(s) referenced in the target interpretation with those outlined in the formulation breakdown. To rate the correspondence of object references, the rater was required to assess the dynamic aspects of the relationship pattern identified in the interpretation and formulation; a match between simple object references was not sufficient to rate high correspondence. For interpretations of the transference, relationship patterns in the formulation which had a bearing on the transference focus became the standard for correspondence ratings, i.e. the therapist could occupy a role in any important object relationship identified in the formulation. A three-point rating scale (no correspondence, moderate correspondence, strong correspondence or identity) was employed, with half-scale ratings permitted. Appendix VIII presents the correspondence rating procedure in detail.

Measures of Patient and Relationship Characteristics.

A number of measures collected in the STI project were available as potential predictors of patient response process for the present study.

The variables were representative of different types of information about patient and relationship characteristics and were drawn from multiple sources (i.e. QOR assessor, independent outcome assessor, patient, and therapist). Measures of patient characteristics included: a) patient demographic information; b) the profile provided by the clinical assessment of the patient's quality of object relationships; c) ratings of the patient's "capacity for dynamic psychotherapy" provided by the QOR assessor, independent outcome assessor, the patient, and the therapist following the second therapy session; d) ratings of pretherapy symptom distress provided by the patient, independent assessor, and therapist; and e) patient and therapist expectation ratings for in-therapy behavior collected following the second therapy session. Measures of the therapy relationship were based on patient and therapist ratings of the quality of the therapeutic alliance made after each third of treatment.

Apart from the demographic information and QOR designation, variables in each of the above groupings were subjected to principal components analyses. The intent of these analyses was to condense the large number of variables in each grouping to a smaller set of representative dimensions. Components with eigenvalues greater than 1.0 were retained. The ratio of subjects to variables in each analysis ranged from 4 to 10. Given the relatively low subject/variable ratios, variables with component loadings greater than .60 were used to interpret each component. The calculation of factor scores employed the factor coefficients for all variables involved in the analysis. The following provides a brief description of the components derived as measures of patient and relationship characteristics. Appendix IX presents the details regarding the complete set of available potential predictor variables, including the

results of the various principal components analyses (i.e. components and variance accounted for, constituent variables, and component loadings).

Quality of Object Relationships (QOR). Quality of object relationships is defined as the person's tendency to establish certain kinds of relationships with others. The conceptual development of the scale and its reliability and validity are described in two recent publications (Azim, Piper, Segal, Nixon, & Duncan, 1991; Piper, Azim, Joyce, McCallum, Nixon, & Segal, 1991). The clinical assessment involves an unstructured interview conducted in two 1-hour sessions held a week apart. The patient's lifelong pattern of relationships is explored in reference to criteria that characterize five levels of object relations: mature, triangular, controlling, searching, and primitive. The criteria concern behavioral manifestations, regulation of affect, regulation of self-esteem, and historical antecedents. Criteria are weighted inversely according to the degree of inference required, i.e. behavioral manifestations are given the highest weighting in formulating a QOR rating. The interviewer distributes 100 points across the five levels of the scale and an overall rating that ranges from 1 to 9. In the STI project, a score of 5 or higher was used to define the high QOR patient group, and a score of 4.5 or lower to define the low QOR group (Piper et al., 1990).

For 50 of the STI patients, an independent rater listened to the audiotaped assessment and provided a second set of ratings. Agreement between the two raters for the designation of a patient as high or low was 76%, and the kappa coefficient was .52. The intraclass correlation coefficient for interrater reliability on the 9-point rating was .50.

Measures of patient "dynamic capacity". The QOR assessor also

completed a series of ten 9-point scale ratings that provide a profile of the patient's capacity for dynamic psychotherapy. The ratings for the ten items (see Appendix IX) were found to be of reasonable reliability in previous work (Piper et al., 1984). Three components, accounting for 60% of the variance in the ratings, were identified in the data reduction analysis. These components were labeled Good Therapy Patient (33%), Affect Regulation (15%), and Focality of Conflict (12%).

The independent outcome assessors in the STI project were responsible for evaluating the patient's social functioning and negotiating the patient's target objectives for therapy. Assessors also provided six ratings of the patient's presentation in the assessment interview. Three components, accounting for 75% of the variance in the ratings, were identified: Wasteful Effort (36%), Strengths and Assets (23%), and Minimizing (16%; see Appendix IX).

Patient ratings of dynamic capacity were drawn from three self-report measures. The patient's capacity to be insightful was assessed by the total score on the Insight Test (Tolor & Reznikoff, 1960). The patient's tendency to employ defense mechanisms from different levels of developmental maturity was assessed by factor scores based on the Defensive Style Questionnaire (Bond, Gardner, Christian, & Sigal, 1983). Finally, the patient's pretherapy rating of his/her expectation for treatment effectiveness was regarded as a self-report of "hopefulness" for therapy.

The therapist provided six item ratings of the patient following the second session (i.e. psychological mindedness, patient motivation, focality of conflict, response to interpretation, interaction with therapist, and patient likability). The principal components analysis of

these ratings resulted in two factors, accounting for 70% of the rating variance: Good Therapy Patient (55%) and Focality of Conflict (14%).

Measures of patient "problems in functioning". A total of 15 variables from the STI outcome battery (see Piper et al., 1990) were included in a principal components analysis. The scores concerned the pretherapy functioning of the patient on measures of interpersonal functioning, psychiatric symptomatology, self-esteem, and life satisfaction. Measures of social adjustment in four areas (work, social, family of origin, and sexual) were drawn from a modification of the Social Adjustment Scale interview (Weissman, Paykel, Siegel, & Klerman, 1971) as conducted by the independent assessor. The two independent assessors in the STI project were highly reliable in rating social functioning; the average interrater reliability (intraclass correlation) across the four SAS subscales was .86. Two subscales of the Interpersonal Dependency Scale (Hirschfeld, Klerman, Gough, Barret, Korchin, & Chodoff, 1977) were used to assess emotional reliance and autonomy. A measure of the discrepancy between the patient's present and preferred levels of interpersonal functioning was provided by the Interpersonal Behavior Scale (Piper, Debbane, & Garant, 1977). Psychiatric symptomatology was assessed by the global severity index of the SCL-90 (Derogatis, 1977), the Beck Depression Inventory (Beck & Steer, 1987), and the Trait Anxiety Inventory (Spielberger, 1983). Self-esteem was assessed by the Rosenberg (1979) measure. Life satisfaction was assessed by a single, 7-point Likert scale rating. As noted, the independent assessor assisted the patient in formulating a set of written target objectives for therapy. The rating of severity of disturbance averaged across the objectives as provided by the patient, independent assessor, and therapist following the second session

rounded out the pretherapy outcome measures entered into the components analysis. Four components, accounting for 61% of the variance among the pre-therapy outcome variables, were identified. The first factor, labeled Patient Symptom Distress, was by far the largest (36%) and captured a general dimension of health-sickness. The remaining factors included Patient Interpersonal Functioning (9%), Therapist Target Severity (8%), and Patient Sexual Functioning (7%; see Appendix IX).

Patient and therapist expectation ratings. Patients and therapists were asked to provide ratings of their "expectations of experience in therapy sessions" following their second therapy contact. Four sets of 15 ratings each were completed, both participants considering their expectations for themselves and for the alternate party. Each set of 15 items was subjected to a principal components analysis. Four components emerged in three of the four analyses, accounting for 64-67% of the rating variance. In the analysis conducted on the therapist's ratings of how they expected themselves to behave, five components accounted for 73% of the rating variance. The four components underlying patient expectation ratings of their own therapy behavior included Activity Level (38.1%), Content Focus (11.2%), Questioning Behavior (8.7%), and Involvement (6.9%). Appendix IX provides a detailed description of the principal components which emerged in each of the four analyses.

Participant ratings of the therapeutic alliance. Patients and therapists were asked to complete ratings of the therapy relationship after sessions 7, 14 and 20. Participant ratings of the alliance had been preferred for the STI project because of their relative simplicity, availability, and lack of dependence on a sophisticated team of judges. The 21 item ratings were summed and averaged to provide scores on seven

subscales: measures of the emotional bond or "affective relationship" (as experienced and perceived reciprocally; 2 variables); measures of the "working relationship" (disclosure and feeling expression; 2 variables); the degree of positive idealized transference in the relationship; and the two dimensions (helpfulness, collaboration) of Luborsky's (1984) helping alliance concept. The seven subscale scores from each participant at each assessment were subjected to a principal components analysis. The analyses accounted for 63-73% of the variance among the subscale scores. In each instance, the first component accounted for most of the variance among the subscales (54-66%) and represented the patient's or therapist's global impression of the Therapeutic Alliance at that point in therapy (see Appendix IX).

Measures of Session Outcome.

Patients and therapists completed evaluation ratings following each of the twenty STI sessions. Six session outcome variables were derived from the ratings provided by each party for each session. Four item ratings used a 7-point Likert scale and inquired about the patient's level of disclosure, the degree to which he/she felt understood, the degree to which he/she could understand and work with what the therapist said, and the patient's sense of the usefulness of the session. The remaining two variables comprised scores on the evaluative factors of Stiles' (1980; Stiles & Snow, 1984) Session Evaluation Questionnaire. The SEQ is defined as a measure of "session impact"; 12 of the 24 bipolar adjectives in a 7-point semantic differential format were employed. The adjective ratings are averaged to yield session scores on Depth-Value (i.e. the participant's view of session "effectiveness") and Smoothness-Ease (i.e. the participant's view of patient "distress"). Session outcome variables

were aggregated to provide mean values for therapy overall.

Measures of Therapy Outcome.

The comprehensive battery of outcome measures employed in the STI study (Piper et al., 1990) has been mentioned above in the context of pretreatment "problems in functioning" as a predictor of response to interpretation. Post-therapy and follow-up outcome data from the STI study were employed to assess the importance of dimensions of patient response to therapy benefit.

Nineteen of the 23 outcome variables employed in the STI study were measured at pretherapy, post-therapy, and follow-up, permitting the calculation of residual gain scores. The remaining 4 variables were global impressions assessed at post-therapy and follow-up (rated benefit scores). A principal components analysis was conducted with 16 of the post-therapy measures. Seven measures had been eliminated due to high interdependency or missing data upon examination of the intercorrelation matrix involving all 23 measures.

The principal components analysis identified four outcome factors (eigenvalues > 1.0) which accounted for 63% of the variance. Variables with component loadings greater than .60 were used to interpret each component. Factor I accounted for 40% of the variance and included the global severity index of the SCL-90 (Derogatis, 1977), the Rosenberg Self-Esteem Scale (1979), the Beck Depression Inventory (Beck & Steer, 1987), the emotional reliance subscale of the Interpersonal Dependency Inventory (Hirschfeld et al., 1977), the present level of functioning subscale of the Interpersonal Behavior Scale (Piper et al., 1977), the Trait Anxiety Inventory (Speilberger, 1983), the Social Functioning subscale from the modified Social Adjustment Scale interview (Weissman et

al., 1971), and the Life Satisfaction rating. While the content of the eight measures differs, the factor represents change in General Symptomatology and Dysfunction according to patient self-report. Factor II accounted for 9% of the post-therapy outcome measure variance and included ratings of the overall usefulness of therapy provided by the patient and therapist, and the rating of target objective severity provided by the patient. This factor represents change in the Individualized Objectives (problems) for therapy provided by patients. Factor III accounted for 9% of the variance and included the Work Functioning subscale of the SAS interview and the rating of target objective severity provided by the independent assessor, thus representing change assessed by External Observer Rating. Factor IV accounted for 6% of the variance and included a rating of target objective severity provided by the therapist and the Family and Sexual Functioning subscales of the SAS interview. The meaning of this factor was unclear due to differences between the constituent variables (i.e. content, source of rating), and the fact that the signs of the loadings for the therapist rating versus the SAS variables were opposed. Thus, the outcome variables were reduced to three conceptually meaningful factors. The calculation of factor scores employed the factor coefficients for all variables involved in the analysis. The same factor structure was used to represent outcome at follow-up in the interest of maintaining consistency with the post-therapy factors.

PROCEDURE

Rating Tape Construction.

The TIRS rating forms completed for the STI project were accessed for identification of therapist interpretations within each therapy case.

Episodes identified in the STI session material which satisfied the selection criteria were re-recorded, resulting in a library of episode tapes. The episode library was the raw database for construction of both patient process and interpretation correspondence rating tapes. Patient process rating tapes were comprised of precondition and response segments. The target interpretations from the selected episodes were excluded from the rating tape. Segments retained their consecutive order within phase of therapy; phases were counterbalanced. Process raters were therefore blind to the type of segment (precondition or response), the phase in therapy from which the episode was selected, the nature of the target interpretation, and the classification of the episode (response) as "unsuccessful-successful" (nonwork-work). Interpretation correspondence rating tapes were comprised of the precondition segment and target interpretation from each selected episode. All episodes from a single case were represented on the same tape, counterbalanced by phase. Correspondence raters were therefore blind to the phase in therapy from which the episode was selected and the classification of the episode on the "success" dimension.

Raters.

A total of seven raters were employed during the data collection phase of the study. A team of four raters was available for the duration of the project; naturally occurring staff turnovers necessitated replacement by and training of new raters. All raters were female and exceptional graduates of baccalaureate psychology programs hired as research assistants in the research unit of the Division. All had previous experience with interviewing and/or rating procedures. At the start of their tenure, each assistant had been provided with a didactic overview of

psychodynamic theory and the models of psychotherapy utilized in Division treatment programs.

Rating Tasks.

Raters for the present study were selected on the basis of availability and interest in the tasks of the project. The raters were provided with the source articles and/or manuals associated with each rating system selected for use in the process battery. Group discussions of the conceptual background of each measure were held such that each rater could acknowledge comprehension of the material prior to applications of the measure. Training materials for actual rating procedures included those provided with the respective system (VQ and EXP) and/or a tape of interpretation episodes selected from STI sessions in the manner described. The 100 episodes used for training purposes were independent of those selected for the research sample. Initial applications were conducted as a group, with open discussion of problems encountered with the system. Four scheduled assessments of reliability were conducted during the training period, each assessment being followed by feedback and further discussion. Raters received training to criterion (minimum interrater reliability/agreement = .60) on the various rating systems prior to working with actual episode material.

An individual rater worked independently and was responsible for the application of at least one rating system to a single tape side (20-35 episode segments). By counterbalancing rater assignments to episode material, each rater was prevented from applying multiple systems to the same segments or from using a system to rate the precondition and response segments from the same therapy case. Counterbalancing decreased the possibility of rating sets or halo effects. The interrater reliability of

each process system was assessed on four regular occasions during data collection, i.e. an assessment was scheduled after rating data had been collected on a sample of 160 episodes. For reliability assessments, all raters applied the same system to episodes from a single, randomly selected tape side. For each measure, reliability was based on a subsample of approximately 100 episodes.

Interpretation correspondence raters were provided with the rating tape, a copy of the formulation breakdown for each case represented on the tape, and a rating "template" that listed the dynamic components and objects that had been coded for the target interpretation using the TIRS. Raters were required to assess the degree of match between the dynamic component(s) and object(s) referenced in the interpretation with those outlined in the formulation breakdown. A rater worked independently and applied the system to the episode material from a single case. As much as possible, individual raters were required to provide ratings on the same number of cases from each of the two QOR (high vs. low) subgroups. Reliability assessments were conducted on four occasions in the manner described above, on a total of 80 episodes.

Rating System Reliabilities.

A large sample of interpretation episodes was regarded as a strength of the present study. Due to the importance of this objective, the process rating data for the present study were collected from individual judges working independently; the use of consensus judgements from a group of raters was not economically feasible. Reliability coefficients (intraclass correlation or the average Pearson correlation across all rater pairs) thus reflect the average reliability of the individual rater. For variables where interrater agreement was also calculated

(segment ratings on the VQ and EXP variables), the coefficients are interpretable in the same manner. Given that this rating approach generally provides lower reliability estimates, the coefficients attained by the judges in the present study were regarded as moderate and adequate for the exploratory nature of the data analysis. General factors mitigating against higher levels of interrater reliability and agreement included the turnover of rating team members and the need for successive recalibrations, and the problems of rater contamination and drift when working with multiple systems. Table 3 presents the reliability indices for each of the rating measures used in the present study, averaged over the four occasions for which they were determined.

Insert Table 3 about here

One Speech Disturbance Ratio category (Breaks) was dropped due to minimal base rates of occurrence. Of the remaining five categories, four (Corrections, Fragments, Repetitions, and Distortions) were used to calculate a total SDR for the segment. Reliability was assessed on a total of 103 episode segments. Generally, raters were clearly able to identify the presence of content disturbances and non-content speech intrusions. Apart from Repetitions, however, the specific categories of content disturbance could not be identified reliably. The Intrusion and Total SDR variables were retained for data analysis in order to be consistent with previous usage (Mahl, 1959).

Reliability on the VQ category system was assessed on a total of 89 episode segments. Raters evidenced an acceptable level of agreement on nominal VQ ratings for the segment; the average kappa coefficient across

assessments indicated, however, that reliability was poor once agreement was adjusted for chance. Division of patient verbalization material into distinct "thought units" was done with good reliability. The reliability of VQ tallies assigned to units was acceptable only in the case of the Emotional category. The Pearson coefficient for the tally rating approach, averaging across both the VQ categories and all reliability assessments, was .55. This value was close to the minimum criterion value for interrater reliability established for the study (Kraemer, 1981). It was decided to employ the proportion tally VQ category scores in the data analyses.

Reliability assessments for the EXP Scale involved a total of 96 episode segments. Percent perfect agreement was adjusted for the probabilities associated with a 7-point scale (Tinsley & Weiss, 1975). Agreement and reliability coefficients showed little variation across assessments, were equivalent to values reported in the original scale manual, but were substantially below the values attained on the training material. Two factors known to influence reliability on EXP ratings (i.e. working with the short form of the scale, rating successive excerpts from the same therapy case) may have been operative during the data collection.

Reliability assessments for the PCRS involved a total of 97 episode segments. Reliabilities on the VRM categories were adequate but strongly influenced by the base rate of occurrence, i.e. more frequently occurring response modes were coded more reliably. Coefficients for identifying patient references to dynamic components were less impressive but approximated values attained in initial applications of the TIRS. Identification of references to defensive processes remains a problem for both systems. Patient references to objects were coded with high

reliability. Overall, interrater reliability estimates for the PCRS suggest that a reasonable first step to developing a credible measure of patient content reference activity in therapy sessions had been accomplished.

Interpretation correspondence raters evidenced moderate reliability in assessing the match between dynamic components and objects referenced in the target interpretation with those outlined in the formulation breakdown.

RESULTS

OVERVIEW OF APPROACH TO DATA ANALYSIS

The planned approach to examination of the episode data was subdivided into two parts. In the first part, the intent was to "map the terrain", that is, to identify the characteristics of patient processes and therapist behaviors during interpretation episodes. Three analyses were conducted in this part of the data analysis. First, two-way MANOVAs were conducted using the therapist behaviors during the episode as a whole (precondition segment, interpretation, and response segment) as the dependent variables. The two independent variables were the therapists (of whom there were eight) and the "nonwork-work" episode classification based on the patient's response. Second, variables descriptive of patient process during the precondition segment were the independent variables in a discriminant function analysis which differentiated episodes on the "nonwork-work" classification. This analysis furnished a description of patient "readiness" for work in response to interpretation. Third, the dimensions of patient process during the response segment were identified through a principal components analysis conducted on response variables adjusted for the baseline level shown in the precondition (residual gain scores) or assessed at the level of the response only (rated benefit scores). In sum, the first part of the data analysis aimed to highlight differences in therapist behavior and patient precondition process during episodes classified as "successful" ("work") or "unsuccessful" ("nonwork"), and to identify the dimensions of patient response to interpretation.

The aim of the second part of the data analysis was to assess correlational relationships involving the dimensions of patient response

to interpretation. Three analyses were conducted. First, predictors of the response dimensions were to be identified by the use of a hierarchical multiple regression analysis strategy. Potential predictor variables reflected characteristics of the patient, the therapeutic relationship, and the episode itself, e.g., patient "readiness", therapist interpretation references to dynamic components. Identification of a number of statistical issues with the hierarchical regression approach resulted in a revision of this analytic strategy and the use of aggregated episode data in stepwise multiple regression analyses. These issues are addressed in greater detail in a subsequent section. The second and third analyses assessed relationships between the dimensions of patient response and outcome at the level of the session (six session evaluation variables each from the patient and therapist), or outcome at the level of the therapy (three outcome factors at both post-therapy and follow-up). In each analysis, the Pearson correlation coefficients between aggregated response scores and outcome were considered for the entire patient sample and for each subgroup of patients defined by the high vs. low QOR designation. In sum, the second part of the data analysis aimed to identify significant predictors of patient response to interpretation, and to determine the strength of association between the patient response dimensions and two types of therapy outcome.

CHARACTERISTICS OF INTERPRETATION EPISODES

Overview.

The entire sample of 1081 episodes was employed for analyses of the characteristics of interpretation episodes. The statistical methods used for analyses of therapist behavior and patient precondition process (MANOVA and discriminant function analysis, respectively) require that the

assumption of independent observations be satisfied. Principal components analysis, used to identify the dimensions of patient process during the response segment, does not involve inferential hypothesis testing. However, confidence that the components are stable and not sample-specific increases when the data are comprised of independent observations. Nonindependence of observations was a potential concern given that multiple episodes had been drawn from each of the 60 STI cases. Two methods were employed to assess the degree of nonindependence evident in the episode data. First, after Stevens (1986, p. 202), the intraclass correlation coefficient was used to measure the dependence among observations for each variable involved in the analyses of therapist behavior and patient precondition process. The mean squares for between ("nonwork" versus "work") and within (error) components were drawn from the univariate F tests provided as follow-up to a significant MANOVA using the "work" classification as the independent variable. The intraclass coefficients indicated that dependence was <u>not</u> evident in the data and was thus unlikely to adversely affect the significance level or power of the statistical tests used in the analyses reported below. Second, the analyses reported below were also repeated on a transformed episode dataset. The transformation program (White, Haun, Horsman & Wong, 1988) required an equal number of observations per case (13 episodes for each of 56 cases, $n = 728$) and adjusted for the autocorrelation present across the observations within each case. Four cases had provided fewer than 13 episodes each during the selection phase of the study; these cases were therefore dropped from the analyses using the transformation for autocorrelation. The results described in the following sections were largely confirmed when analyses were repeated using the reduced and

transformed dataset, again providing assurance that the presence of nonindependent observations would not markedly affect confidence in the findings. Using all available episode data was preferred for the greater power afforded the MANOVA and discriminant function procedures, and the larger sampling afforded the principal components analysis.

Therapist Behavior in "Nonwork" Versus "Work" Episodes.

A two-way MANOVA was conducted on fifteen therapist behavior, dependent variables drawn from TIRS ratings. The independent variables were the general classification of the episode as "unsuccessful" or "successful" (based on a patient response of "nonwork" versus "work") and the individual therapist (eight levels). The rationale for using the therapist as a blocking variable was to allow for a partitioning of systematic variance due to stylistic differences from the error term, and thus provide for a more powerful test of the "nonwork-work" main effect. Some differences in therapist style were expected but not regarded as being of theoretical interest. Three of the dependent variables represented therapist behavior during the precondition segment: the duration of therapist interventions, the frequency of interventions from TIRS categories 1-5, and the frequency of interventions from TIRS category 6. Three more dependent variables (same measures) were drawn from the response segment of the episode. The remaining nine variables represented aspects of the target interpretation itself: the duration of the interpretation, the frequency of references to each type of dynamic component (i.e. wish, anxiety, defense, and dynamic expression), the frequency of references to objects (i.e. the therapist, familial objects, and other objects), and the frequency of references to object links.

The MANOVA indicated that both main effects were significant. In

other words, therapist behavior varied systematically as a function of the individual therapist [multivariate $F(105, 7399) = 493$, $p < .0001$] and the "nonwork-work" classification [multivariate $F(15, 1051) = 3.50$, $p < .0001$] of the episode. The interaction effect was found to be nonsignificant [multivariate $F(105, 7399) = 1.09$, ns]. Thus, differences associated with the "work" classification were found to be independent of the activity of specific therapists. Employing a "protected F" approach (see Stevens, 1986, p. 121-123, 143), the results of the overall multivariate test allowed for univariate analyses of therapist behaviors in "nonwork" (n = 414) versus "work" (n =667) episodes.

Therapist interventions were of significantly shorter duration within "work" versus "nonwork" episodes during both the precondition, $F(1, 1065) = 6.10$, $p < .01$, and response segments, $F(1, 1065) = 18.91$, $p < .0001$. During precondition segments, therapists made significantly less use of interventions from TIRS category 6 within "work" versus "nonwork" episodes, $F(1, 1065) = 7.38$, $p < .01$. During response segments, therapists made significantly less use of interventions from TIRS categories 1-5, $F(1, 1065) = 10.76$, $p < .001$, and TIRS category 6, $F(1, 1065) = 24.70$, $p < .0001$, within "work" episodes. The univariate tests involving variables descriptive of therapist behavior in precondition and response segments therefore indicated that there was significantly less therapist activity within episodes classified as "successful", i.e. as reflecting patient "work". In contrast, univariate tests involving variables descriptive of the target interpretation were <u>all</u> found to be nonsignificant. In short, while therapists were significantly less active during precondition and response segments of "work" versus "nonwork" episodes, <u>no</u> differences were evident in the <u>form</u> of the interpretation

they provided.

Further analyses identified the specific therapist behaviors during precondition and response segments for which differences between "nonwork" and "work" episodes had been evident, i.e. specific TIRS interventions subsumed under the general categories examined above. A two-way MANOVA was conducted for each subgrouping of therapist behavior variables which had evidenced a significant difference in the initial analysis: TIRS category 6 interventions during the precondition segment; TIRS categories 1-5, and TIRS category 6 interventions during the response segment. In these three analyses, the interaction effect was pooled with the error term to provide a more stringent test of significance for the "nonwork-work" main effect. In each of these analyses, the main effects again attained significance and allowed for examination of the univariate contrasts. During the precondition, therapists were significantly less likely to make requests for information, i.e. ask questions which addressed nondynamic components and/or objects [category 6.4A; $F(1, 1065) = 5.70$, $p < .02$] within "work" versus "nonwork" episodes. During the response, therapists were less likely to use the TIRS category 1-5 interventions of clarification without confrontation [category 3D; $F(1, 1065) = 5.70$, $p < .02$], clarification with confrontation [category 3E; $F(1, 1065) = 6.95$, $p < .01$], or question [category 4A; $F(1, 1065) = 12.68$, $p < .0001$] within "work" episodes. Similar less frequent use during response segments of "work" episodes was noted for the category 6 interventions of providing information [category 6.3B; $F(1, 1065) = 3.71$, $p < .05$], clarification without confrontation [category 6.3D; $F(1, 1065) = 13.99$, $p < .0001$], and question [category 6.4A; $F(1, 1065) = 11.11$, $p < .001$].

In summary, analyses of therapist behaviors during "unsuccessful" ("nonwork") versus "successful" ("work") episodes indicated there were no differences in the form of the interpretation provided but showed that therapists during "work" episodes were significantly less active prior and subsequent to the target interpretation. These differences in activity were specific to information-providing interventions (e.g. clarifications with or without confrontation) and questioning of the patient. The results suggest that "work" in interpretation episodes is largely a patient-driven process, i.e. the patient required less preparation for and less clarification after the interpretation during episodes regarded as reflecting "work". Apart from providing an interpretation, the level of therapist activity suggests that he or she is able to "recede" during episodes classified as "work". In contrast, during "nonwork" episodes the patient may be less ready for and able to use the interpretation, i.e. is somehow not sufficiently engaged in a process which permits therapeutic work. The therapist might then be required to become more active with questions and clarifications which prepare the patient for and further illuminate the interpretation's meaning.

Patient Process Prior to Interpretation: Patient "Readiness".

A discriminant function analysis was conducted on variables descriptive of patient process during the precondition segment of interpretation episodes. The intent was to identify those variables which significantly discriminated patient responses independently classified as "nonwork" (n =414) or "work" (n = 666; missing values were present for a single episode). The analysis was summarized by a weighted composite of precondition process measures which significantly accounted for the between-group separation provided by the "nonwork-work" rating. This

discriminant function was held to define a dimension of patient "readiness" for work in response to interpretation.

A total of 28 precondition process variables were available for entry into the analysis. Seven process measures were eliminated due to high interdependency upon examination of the intercorrelation matrix involving all 28 measures. Four of the 21 process variables retained were component scores derived from a principal components analysis of the 8 VRM ratings from the PCRS. Three of the variables in the analysis were proportion tally scores (i.e. percentage of category to total tallies for the segment) for the Focused, Externalized, and Limited Vocal Quality categories; the Emotional VQ measure was dropped to avoid the high multicollinearity associated with proportion measures.

Eight precondition process variables were identified as making a significant contribution to the discrimination of "nonwork" versus "work" in the patient's response to interpretation. Identification was based on, first, the significance of the F test applied to the value of Wilks's lambda associated with the variable and, second, the magnitude of the correlation between the discriminating variable and the function based on all eight variables. For the latter, correlations had to exceed $r = .25$, i.e. at least three times as large as a coefficient significant at $p < .01$ in a sample of this size. Table 4 presents the variables selected to define the discriminant function, the correlation of the discriminating variable with the overall function, the value of the Wilks's lambda associated with the variable, and the significance of the between-groups discrimination afforded by the variable.

Insert Table 4 about here

The discriminant function was held to represent a behavioral index of patient "readiness" for work in response to the therapist's interpretation. The variables associated with the function defined an integrated orientation to internal processes that cut across language measurement categories. Externalized VQ reflects a preplanned, "lecturing" quality in the patient's manner and a tendency to focus on situational description. The variable was negatively associated with the "readiness" dimension. Disclose versus Inform is a bipolar factor based on two VRM categories, the extremes reflecting the communication of personal subjective material versus factual information about external circumstances. Patient "readiness" was associated with a greater degree of patient self-disclosure. A higher level of patient Experiencing, i.e. making use of immediate affective information in attempting to understand salient personal issues, was also positively associated with "readiness" in the precondition segment. Focused VQ reflects an orientation to internal processes, is recognized by a "pondering" or thoughtful quality in the patient's manner, and was positively associated with the composite variable. Reflect versus Question was a second bipolar factor derived from the principal component analysis of VRM ratings. The correlation with the discriminant function suggests that "readiness" was defined in part by a communicative orientation that places less emphasis on questioning the therapist's statements than reframing therapist interventions to clarify understanding. The positive correlation between Proportion Utterance and the composite variable indicated that "readiness"

was reflected by sustained patient verbalization prior to the interpretation. The negative correlation of Speech Rate with the discriminant function indicated that slow, "thoughtful" patient speech was discriminative of "work" in the response. Finally, a tendency to make references to relationships outside the therapy or the patient's family of origin was negatively associated with patient "readiness". The correlation suggested that self-referent patient content was discriminative of "work" in the response to interpretation.

The overall discriminant function proved significant (Wilks's lambda = .96, $X^2 = 40.85$, df = 21, $p < .001$) but accounted for only a small proportion of the between-group separation represented by the "work" classification (i.e. the point-biserial correlation between the dichotomous "nonwork-work" classification and the continuous discriminant function was .19). The usefulness of the function for practical purposes therefore rested on its ability to correctly classify episodes into the "nonwork-work" categories. For each of the two categories, classification by chance alone would reflect the proportion of the episode sample actually distributed between "nonwork" (38.3%) and "work" (61.7%). For the sample as a whole, calculation of the chance rate of correct classification is a function of the actual distribution of episodes according to "work" and the "hit rate" of the discriminant function, i.e. the calculation is similar to derivation of the expected values in a chi-square analysis (Betz, 1987, p. 396). Classification by chance alone for the sample as a whole was calculated to be 49.3%. The composite variable correctly classified 57.5% of "nonwork" and 58.9% of "work" episodes, and the overall rate of correct classification was 58.3%. Using the z test for the difference between proportions, the overall group

prediction accuracy was found to be significantly better than chance (z = 5.91, $p < .001$). However, only the separate group prediction accuracy for "nonwork" episodes proved significantly better than chance (z = 8.02, $p <$ .001). In effect, the discriminant function was useful in improving the accuracy of predicting "nonwork" in the patient response above the level expected by chance.

The discriminant function analysis identified a dimension of patient behavior indicative of focused intrapersonal examination and openness to the therapist's interpretation. Discriminant function scores were retained so that patient "readiness" could be employed as an episode-level predictor of response process in stepwise regression analyses.

Dimensions of Patient Response to Interpretation.

Residual gain scores (RGSs) were calculated for those process measures assessed for both precondition and response segments. The calculation involved dividing the residual of the regression of precondition on response scores by the standard deviation of the precondition measure. Residual gain scores represented the change in patient process associated with the therapist's interpretation. A total of 21 residual gain variables were available (2 SDR measures; 6 timed measures of speech/silence; 4 VQ proportion measures; modal Experiencing; 4 VRM factors based on a principal components analysis of the 8 VRM residual gain scores; and PCRS codings of patient references to therapist, familial, and other objects, and object links). Use of the Patient Response to Interpretation scale in the STI process analysis yielded 8 variables similar to "rated benefit scores" in outcome analyses, i.e. measured for the response segment only. The variables included the latency of the patient's response, three dummy variables to represent the

work categorization of the response (Descriptive, Relational, or Dynamic), and four patient reference to dynamic component (wish, anxiety, defense, or dynamic expression) variables in the case of a rating of Dynamic Work. Redundant measures were identified via examination of the correlation matrix of all 29 residual gain and rated benefit variables. A total of 26 variables were selected and entered into a principal components analysis of the response process associated with interpretation. A Varimax rotation was employed to assist explication of the resulting component structure.

Both the Kaiser criterion (eigenvalue > 1.0) and a scree test associated with the principal components analysis identified twelve dimensions, accounting for 66.2% of the variation among the measures of response process. Process measures having loadings of .40 or greater on a component, with minimal loadings on all other components, determined the label for that component. Table 5 summarizes the results of the components analysis.

Insert Table 5 about here

Dynamic Work was the largest component identified in the analysis, accounting for 9.4% of the variance among the process measures. The component was comprised of ratings conducted at the level of the response only, i.e. from the TIRS rater's use of the Patient Response to Interpretation scale. Four "rated benefit" variables loaded on the Dynamic Work component:

a) the TIRS rater's categorization of the response as Dynamic Work;

b) patient references to dynamic expressions, i.e. motivating

affects, cognitions, or behaviors and their resultant effects;

c) patient references to the use of defensive operations; and

d) the TIRS rater's categorization of the response as Descriptive Work. This work categorization had a negative loading on the Dynamic Work component.

To score the patient's response as Dynamic Work, the TIRS rater was required to identify patient references to additional dynamic components which were not addressed by the interpretation. Patient references to dynamic expressions and/or defensive operations were associated with the Dynamic Work component. This suggested that for the majority of interpretations the therapist addressed the components of wish and/or anxiety and, during a Dynamic Work response, the patient additionally made reference to dynamic expressions and defenses. There was a total of 1314 references to dynamic components in the 1081 target interpretations. References to wish (348, or 26.5%) and anxiety (342, or 26.0%) indeed made up the majority (52.5%) of these dynamic component references. Dynamic Work was also inversely associated with those responses receiving a rating of Descriptive Work, i.e. the simple provision of additional detail. This relationship implied that patient process was different for these two types of "work" response. In other words, the process associated with the patient's exploration of the components of dynamic conflict was qualitatively distinct from the patient's elaboration of detail regarding external circumstances.

Internal-External Focus was the second component extracted in the analysis and accounted for 8.7% of the total variance. Internal-External Focus was a bipolar dimension defined by two Vocal Quality RGSs. The negative pole of the dimension was represented by the change in

Externalized VQ from precondition to response, and the positive pole by the change in Focused VQ. The component thus reflected a shift in attention during the response towards greater concern with internal processes, and can thus be seen as a fundamental constituent of the therapeutic process.

The third principal component accounted for 6.4% of the total variance. Hesitant Acknowledgment represented a change in the form and intersubjective nature of the patient's verbal output. The component was comprised of three RGS variables:

a) an increase in the number of discrete patient communications, i.e. patient utterances demarcated by pauses and/or therapist statements;

b) a decrease in the proportion utterance for the segment, i.e. the duration of the segment filled by the patient's verbalization; and

c) an increase in the expression of an interpersonal intent defined by the VRM categories Acknowledge and Confirm.

Hesitant Acknowledgment therefore implied frequent confirmations of the therapist's interpretation following the intervention, but also reflected a decrease in the patient's overall verbal output during the response segment. The component suggested the patient's private attempt to assimilate and make use of the interpretation and could reflect an early stage in the development of insight.

Patient Involvement was the fourth component extracted in the analysis and accounted for 5.9% of the total variance. The component was similar to measures of productive in-therapy behavior defined in previous process research and was comprised of two RGS variables:

a) an increase in the expression of the intent to disclose, as defined by the negative pole of a bipolar dimension made up of the VRM categories Disclose and Inform; and

b) an increase in the modal level of patient Experiencing.

Patient Involvement reflected the increase in a highly valued patient activity in association with interpretation, i.e. the patient provided more personal information and made a greater use of affective experience in presenting this material.

References to Anxiety and Wish was the fifth component extracted and accounted for 5.2% of the total variance among the process measures. The component was comprised of two "rated benefit scores" based on the TIRS rater's assessment of the first minute of the patient's response, i.e. patient references to the dynamic components of anxiety and wish. Identification of these patient references implied a categorization of the patient's response as Dynamic Work following an interpretation addressing defenses and/or dynamic expressions. References to defenses (311, or 23.7%) and/or dynamic expressions (313, or 23.8%) were in the minority (47.5%) among interpretations in the episode sample. Thus, the relatively lower frequency of patient references to anxiety or wish defined these behaviors as a component independent of Dynamic Work. The first and fifth response components nonetheless represented parallel processes, i.e. the patient's examination of the components of dynamic conflict.

The sixth component extracted, Emotionality accounted for 5.0% of the total variance and was defined by three RGS variables:

a) an increase in the occurrence of Emotional VQ;

b) an increase in the production of noncontent (Intrusion) speech disturbances; and

c) a decrease in the production of content-oriented speech disturbances.

The component was indicative of increased crying or tearfulness in the response.

Demands on Therapist was the seventh component extracted and was comprised of three RGS variables:

a) an increase in patient references to the person of the therapist, based on PCRS object codings;

b) an increase in the expression of an interpersonal intent defined by the VRM categories of Question and Advise; and

c) a decrease in patient references to "other" objects.

The component accounted for 4.8% of the total variance and was regarded as being indicative of increased antagonism towards the therapist and/or opposition to the interpretation.

A single RGS variable defined the eighth component extracted in the analysis. The component accounted for 4.5% of the total variance and was solely represented by a decrease in the use of a Limited vocal quality. Limited VQ has been described as indicative of withdrawal or a reluctance to contribute to the therapy process. A high score on this component thus reflects an increase in the patient's active engagement and contribution in response to interpretation. As indicative of a movement away from helplessness during the therapeutic interaction, the component was assigned the label Patient Confidence.

Two RGS variables derived from PCRS object codings defined the ninth principal component, labeled References to Familial Objects and Links. The component accounted for 4.3% of the total variance and was represented by an increase in patient references to familial objects (i.e. parents,

siblings, family as a whole) and patient references to object links. The component apparently pointed to increased patient exploration of parallels between current and historical familial relationships.

The tenth principal component accounted for 4.1% of the total variance and was comprised of a "rated benefit" response rating and a RGS variable. Anxious Speech Production was defined by a negative loading for response latency, indicating the patient responded before the interpretation was complete or soon thereafter, and an increased speech rate. Anxious Speech thus represented an immediate response characterized by a rapid rate of verbal output, suggesting an anxious attempt to "ward off" the interpretation.

The remaining two components were each defined by a single variable. Relational Work accounted for 4.1% of the total variance and was represented solely by the TIRS rater's judgement that the patient's response provided additional information about the recurrent nature of maladaptive interpersonal patterns. Denial was defined by a single RGS variable representing an increase in the expression of an interpersonal intent defined by the VRM categories of Assume and Reflect. A high score on this response aspect would be characterized by an increase in patient inferences about the motivations of others while in the guise of reflecting the therapist's interpretation. The Denial component was held to represent the patient's resistance to applying the interpretation in understanding their own dysfunction. The component accounted for 4.0% of the variance among the process measures.

Component scores were calculated for each episode. Scores on each component were based on the loadings of all process variables. Subsequent analyses first examined potential predictors of the twelve response

components and then proceeded to examine the relationships between response components and measures of session/therapy outcome.

RELATIONSHIPS INVOLVING DIMENSIONS OF PATIENT RESPONSE

Predictors of Response Component Scores.

A number of statistical issues arose following initial attempts at hierarchical regression analyses using the response component scores as dependent variables. A major conceptual issue was associated with the choice to employ the hierarchical strategy. It quickly became evident that there was no a priori ordering of the predictor variables which did justice to the phenomena under study, i.e. all predictors could be regarded as bearing simultaneously on the response dependent variable. An ordered hierarchical regression strategy which controlled for the influence of different classes of predictors (Cohen & Cohen, 1983) was thus precluded. Additional problems were associated with the characteristics of the episode data. First, the nature of many of the predictor variables worked against obtaining substantial correlations with the dependent measures. For example, a frequency count was often used to assess aspects of the target interpretation. Because the aspects (e.g. references to dynamic components) had a low level of occurrence in any given interpretation, the distribution for the variable was often markedly non-normal and had a seriously restricted range of values. Second, concerns about reliability could be raised for independent and dependent variables alike. Third, the large sample size meant that a given predictor or group of predictors easily accounted for a statistically significant proportion of criterion variance. However, the absolute amount of variance accounted for was often trivial. Efforts to cross-validate regression results across randomly selected halves of the

episode dataset were thus unsuccessful. Fourth, as noted above, nonindependence of observations was regarded as a potential problem given that multiple episodes had been drawn from each therapy case. It was possible that scores on episodes from the later sessions of a given case could be predicted from earlier episodes. As a means of addressing the autocorrelation across episodes, the data for each case were transformed using a packaged algorithm (White et al., 1988). This partitioning of the idiosyncratic bias of each case resulted in episode data where independence could be assumed. However, the data transformation also had its disadvantages. The requirements of the program (i.e. an equal number of observations per case) meant a large loss of episode data. The reduced variance of the distributions of dependent and independent variables lowered the likelihood of identifying significant relationships. The autocorrelation program also required that a specific regression model be tested, i.e. a set of predictors hypothesized to be significantly associated with the dependent variable, according to a prespecified order of entry. The exploratory nature of the response component regression analyses meant use of the program was essentially inappropriate. These issues prompted a revision of the regression analysis strategy.

The revised approach to the regression analyses involved aggregating the episode data within each case and working with the mean values for a sample of $N = 60$. The aggregation approach provided for a normalization of variable distributions and an increased spread of variable ranges. As score estimates were based on the average over a number of observations, reliability of the measures was also substantially improved. The major drawback to the aggregation approach was a reduction in statistical power associated with the smaller sample size, i.e. from above .80 to

approximately .57. The dataset no longer provided the latitude to test a large set of predictors; therefore, the selection of independent variables assumed major importance. Selection of predictors was based on the substantive importance of the variable, its reliability, its relative independence from other predictors, and the need to have representative measures of patient, relationship, and episode characteristics.

Thirteen predictor variables were chosen for use in stepwise multiple regression analyses on aggregated response component scores. The variables are listed and described briefly in Table 6.

Insert Table 6 about here

The set of predictors included 4 measures of patient characteristics (TDC1, PATH1, ORREL, and PTXPT1); 1 measure of the therapeutic relationship from the perspective of the patient (PTALLNC); and 8 measures of episode characteristics (DYNPLUS, IWREFM, IAREFM, IDREFM, DYNCORM, ITREFM, TCORM, and PREWORKM). The regression analysis employed stepwise selection from among the 13 predictors entered as a block. Significance tests of the increments to and cumulative R^2 employed Model I error (see Cohen & Cohen, 1983, p. 145-154). Tests employing the more stringent Model II error provided essentially the same pattern of findings. As an aside, a number of the outpatients in the episode sample (9, or 15%) had been on antidepressant medications during their therapy. Medication use was <u>not</u> found to be significantly correlated with any of the response components nor was it selected as a predictor when included in a repeat of the regression analyses. Results of the stepwise regression analysis on each response component are presented in Table 7 and summarized below.

Insert Table 7 about here

Component One: Dynamic Work. Two significant predictors were identified in the stepwise analysis, accounting for 22.3% of the variance in Dynamic Work, $F(2,57) = 8.20$, $p < .001$. Both predictors were measures of episode characteristics. Interpretation references to the therapist (ITREFM) was the first predictor selected, $F(1,58) = 8.11$, $p < .01$. Frequent interpretation of the transference relationship made it less likely the response would involve an exploration of the components of dynamic conflict. Patient "readiness" for interpretation (PREWORKM) was the second predictor selected and was directly associated with the occurrence of Dynamic Work, $F(1,57) = 7.39$, $p < .01$. The patient "readiness" variable was based on a discrimination of work versus nonwork episodes. The Dynamic and Descriptive Work categories were two exclusive criteria for defining a work episode. Dynamic Work was evident in 20.3% of all episodes and 32.8% of work episodes, and the category rating loaded positively on the response factor. In contrast, Descriptive Work accounted for 36.7% of all episodes and 59.5% of work episodes, and loaded negatively on the response factor. While the "readiness" variable discriminated episodes on the general nonwork-work dimension, it emerged as a significant predictor of the specific and less frequent category of Dynamic Work. When the patient had manifested an internal orientation in manner of expression, vocal quality, interpersonal intent, and extralinguistically, the interpretation was capable of eliciting Dynamic Work. In sum, to encourage a Dynamic Work response the therapist should interpret when "readiness" is high (and resistance is low), and restrict

the degree of focus on the transference. Interpretations in this regard can be seen as encouraging or maintaining a process the patient has already initiated.

Component Two: Internal-External Focus. Two significant predictors were recognized in the stepwise analysis, accounting for 17.6% of the variance in Internal-External Focus, $F(2,57) = 6.08$, $p < .01$. The first predictor selected was a patient characteristic measure, pretreatment symptom distress (PATH1), $F(1,58) = 6.89$, $p < .01$. Interpretation references to wish (IWREFM), an episode characteristic measure, was the second predictor selected, $F(1,57) = 4.83$, $p < .05$. A focus on subjective processes is a necessary requirement for the work of therapy. Patients in acute symptom distress may possess more motivation for psychotherapy and the subjective focus required. During sessions, emphasis on the patient's unconscious needs and their meaning served to encourage this focus.

Component Three: Hesitant Acknowledgment. Four predictors attained significance in the stepwise regression analysis, accounting for 32.2% of the variance in Hesitant Acknowledgment, $F(4,55) = 6.54$, $p < .001$. The first predictor selected was an episode characteristic measure of correspondence, the remaining three predictors measures of patient characteristics. Transference correspondence (TCORM) was inversely associated with Hesitant Acknowledgment in the response, $F(1,58) = 8.74$, $p < .01$. The "accuracy" of a transference interpretation (insofar as the therapist's formulation of relationship patterns was correct) made it less likely the patient would simply acknowledge the interpretation and not immediately contribute further material. In effect, an "accurate" transference interpretation facilitated the patient's active engagement with the therapist (see below). All three patient characteristic measures

were directly associated with Hesitant Acknowledgment in the response. In order of the semipartial contributions, the variables selected were: Patient Symptom Distress [PATH1; $F(1,57) = 4.95$, $p < .05$]; the principal component based on therapist ratings descriptive of the Good Therapy Patient [TDC1; $F(1,56) = 5.88$, $p < .05$]; and the global rating of Quality of Object Relationships assigned by the QOR assessor [ORREL; $F(1,55) = 3.72$, $p < .06$]. Patients in acute symptom distress, who provided the therapist with the initial impression of being able candidates for therapy, and who were considered to function at a more mature level of object relations demonstrated a greater likelihood of responding to interpretation with Hesitant Acknowledgment. These characteristics may reflect a predisposition to covertly evaluate the implications of the interpretation, that is, to assess the interpretation through private thought rather than further interaction with the therapist.

Component Four: Patient Involvement. The stepwise regression analysis identified five significant predictor variables (one patient characteristic and four episode characteristic measures) and resulted in the highest level of prediction (44.0%) of all analyses, $F(5,54) = 8.48$, $p < .001$. Patient "readiness" for interpretation (PREWORKM) was the first predictor variable selected and on its own accounted for 16.8% of the variance in the criterion variable, $F(1,58) = 11.73$, $p < .001$. The "readiness" variable included the precondition segment scores on the Inform versus Disclose VRM component and modal Experiencing variable. Given that the response dependent variable was comprised of residual gain scores, however, these aspects of the predictor would be independent of the process behavior, i.e. a process "shift", represented by Patient Involvement. The "readiness" variable was regarded as defining an

integrated focus on internal material and those aspects distinct from the Inform Versus Disclose and Experiencing variables therefore provided for the strong positive association between "readiness" and Patient Involvement. The relationship suggests that an interpretation offered when the patient showed high "readiness" was likely to be followed by increased disclosure and Experiencing. Transference correspondence (TCORM) was the second predictor selected and was also directly associated with Patient Involvement, $F(1,57) = 6.03$, $p < .05$. Addressing the transference in terms similar to hypothesized relationship patterns was associated with the promotion of Patient Involvement. "Accurate" transference interpretations apparently had the effect of moving the patient from simple acknowledgment, private evaluation, and minimal activity (Component Three) to engagement with the therapist. The proportion of interpretations which addressed two or more dynamic components (DYNPLUS) was the only episode measure to be inversely associated with Patient Involvement, $F(1,56) = 6.82$, $p < .01$. A complex interpretation which outlined multiple characteristics of the patient's conflict may have decreased involvement by not providing for the patient's autonomous discovery of connections between conflict and problem, i.e. insight. The correspondence between interpretation references to dynamics and conflictual dynamics identified in the formulation (DYNCORM) was the fourth predictor selected, $F(1,55) = 4.65$, $p < .05$. Insofar as the therapist's formulation correctly identified components of the patient's conflict, "accuracy" of dynamic interpretation was likely to facilitate Patient Involvement. The final predictor selected was the patient characteristic defined by therapist ratings of the Good Therapy Patient (TDC1), $F(1,54) = 5.59$, $p < .05$. Patients considered by the therapist to

show a capacity for psychodynamic therapy confirmed this impression in their response behavior.

Component Five: References to Wish and Anxiety. Three significant predictors accounting for 22.4% of the variance were identified in the regression analysis, $F(3,56) = 5.38$, $p < .01$. The degree of pretreatment symptom distress (PATH1) was the first predictor selected and was directly associated with the response component, $F(1,58) = 4.55$, $p < .05$. The patient's pretreatment expectation for their own in-session behavior (PTXPT1) was the second predictor selected and was also directly associated with the response component, $F(1,57) = 6.44$, $p < .01$. Acuity of distress may increase patient motivation for therapeutic interaction and the appropriate expectation, i.e. to focus on the disturbing affects underlying distress, may facilitate the dynamic focus valued in this form of therapy. The final predictor selected was an episode characteristic measure; interpretation references to wish (IWREFM) was inversely associated with the response component, $F(1,56) = 4.09$, $p < .05$. Therapist references to core aspects of the patient's dynamic conflict supplanted patient identification of the same and associated (i.e. anxiety) components, while perhaps facilitating further examination of the aspect addressed (Component Two).

Component Six: Emotionality. No predictor variables passed the entry criterion in the analysis conducted on the Emotionality component. The null finding implies that a strong emotional response to interpretation ("de-repression") may be an essentially unpredictable process, reflecting the surprise reported by patients when such emotion suddenly emerges.

Component Seven: Demands on Therapist. Three significant predictors were identified in the stepwise regression analysis, accounting for 38.3%

of the variance in the dependent measure, $F(3,56) = 11.57$, $p < .001$. Transference correspondence (TCORM) was the first predictor selected and alone accounted for 20.6% of the variance in Demands on Therapist, $F(1,58) = 15.08$, $p < .001$. Transference interpretations which "accurately" reflected hypothesized conflictual relationships were strongly associated with patient behaviors indicative of opposition in the response. In this regard, the increased patient involvement associated with "accurate" transference interpretations (Components Three and Four) was not always positive in tone. The patient's mean rating of the therapeutic alliance (PTALLNC) was the second predictor selected and was inversely associated with the Demands on Therapist component, $F(1,57) = 11.49$, $p < .001$. The patient's perception that he/she and the therapist were involved in a helpful collaboration decreased the likelihood of the patient reacting against the interpretation. The third predictor variable selected, the proportion of interpretations which addressed two or more dynamic components (DYNPLUS), was also inversely associated with Demands on Therapist, $F(1,56) = 3.91$, $p < .05$. The provision of a "complete" interpretation decreased the likelihood the patient would question or oppose the therapist. With the negative association between this predictor and Patient Involvement, the finding suggests that complex interpretations precluded positive or negative patient contributions to the process, i.e. the therapist "did all the work".

Component Eight: Patient Confidence. Four significant predictors emerged in the stepwise regression analysis, accounting for 30.5% of the variance in Patient Confidence, $F(4,55) = 6.02$, $p < .001$. Three predictors were episode characteristic measures. The proportion of interpretations addressing two or more dynamic components (DYNPLUS) was

the first predictor selected and was inversely associated with Confidence in the response, $F(1,58) = 7.69$, $p < .01$. This finding again suggests the negative impact of "complete" interpretations on the patient's ongoing contribution to the therapy process. The second predictor selected was transference correspondence (TCORM) and was directly associated with the occurrence of Confidence, $F(1,57) = 6.03$, $p < .05$. The "accuracy" of transference interpretations apparently encouraged the patient's interest in active collaboration with the therapist. A patient characteristic measure, the patient's pretreatment expectation for their own in-session behavior (PTXPT1), was the third predictor selected and was directly associated with Confidence, $F(1,56) = 4.11$, $p < .05$. An appropriate expectation for in-session behavior acted to prevent patient withdrawal in response to interpretation. The final predictor selected, the episode measure of interpretation references to wish (IWREFM), was also directly associated with Confidence in the response, $F(1,55) = 3.82$, $p < .06$. Addressing the patient's unconscious needs may be seen as an effort to understand on the part of the therapist, again inviting patient contribution to the process.

Component Nine: References to Familial Objects and Links. Two significant predictors were identified in the stepwise regression, accounting for 12.6% of the variance in response component scores, $F(2,57) = 4.11$, $p < .05$. An episode characteristic measure, interpretation references to anxiety (IAREFM), was the first predictor selected, $F(1,58) = 3.96$, $p < .05$. A dynamic interpretation of the patient's fears was associated with an increase in content references to object relations in the patient's family of origin, perhaps indicating a consideration of the causal roots of dynamic conflicts. A patient characteristic measure, the

patient's pretreatment expectation for their own in-session behavior (PTXPT1), was the second predictor selected and was also directly associated with responses addressing familial relationships, $F(1,57) = 4.05$, $p < .05$.

Component Ten: Anxious Speech Production. A single episode characteristic predictor variable was selected in the stepwise regression analysis. Interpretations which addressed two or more dynamic components (DYNPLUS) were associated with a decrease in Anxious Speech Production, $F(1,58) = 4.59$, $p < .05$. The provision of a "complete" interpretation apparently allayed patient anxiety. However, this form of interpretation was also associated with an increase in patients' behavioral manifestations of helplessness (Component Eight) and a decrease in patients' productive involvement in the therapy process (Component Four). Taken together, these findings suggest that "complete" interpretations are detrimental to productive process in the patient's response.

Component Eleven: Relational Work. No predictor variables passed the entry criterion in the regression analysis conducted on the Relational Work response component. Patient responses categorized as Relational Work were infrequent in the episode sample (4.7% of all episodes, 7.6% of work episodes). Further, responses often received dual codings as Relational and Dynamic Work and were considered as the latter in data entry. Aggregated scores on the response component consequently had minimal variance and this further decreased the likelihood of substantial correlations with the predictor variables.

Component Twelve: Denial. There were also no predictor variables which satisfied the entry criterion in the regression analysis conducted on the Denial response component. This null finding may in part reflect

the overly general nature of the dependent variable. Patient denial can arise in response to a correct interpretation that the patient is not yet prepared to consider, or can be in response to an interpretation that is incorrect or poorly conveyed. Further differentiation of the "subtypes" of patient Denial are likely required before predictive relationships can be identified.

The regression analyses indicated that a number of the predictor variables were associated with one or more response components. Among the patient characteristic measures, pretreatment symptom distress was found to be a positive predictor of an internal focus, Hesitant Acknowledgment, and patient references to the core dynamic components of wish and anxiety. The therapist's judgement that the patient was a strong candidate for dynamic therapy was directly associated with the occurrence of Hesitant Acknowledgment and Patient Involvement. A patient expectation that he/she would actively focus on affect during sessions was positively related to observable Patient Confidence and behaviors valued in this approach, i.e. references to core dynamics and familial object relations. Quality of object relationships was a positive predictor of Hesitant Acknowledgment in response to interpretation. With regard to the therapy relationship, patient ratings of the alliance showed an inverse association with oppositional responses following interpretation.

Measures of episode characteristics proved to be strong predictors of response process. The patient's "readiness" for interpretation was directly related to response components indicative of productive process, i.e. Dynamic Work and Patient Involvement. Interpretation references to wish predicted an internal focus and Patient Confidence while references to anxiety were associated with response content concerning familial

object relations. Notably, interpretation references to defense (IDREFM) was not selected as a significant predictor in any analyses. Interpretations addressing two or more dynamic components were found to be detrimental to patient contributions to therapy process. "Complete" interpretations were inversely associated with patient Involvement, Confidence, and oppositional responses, and also served to allay anxiety perhaps necessary to continued productive therapy process. Accuracy of interpretation references to the components of the patient's dynamic conflict was a positive predictor of Patient Involvement. The strongest prediction of response process was provided by measures of transference interpretation. Frequent references to the transference relationship were found to be inversely related to Dynamic Work in the response. The correspondence between references to the transference and relationship patterns identified in the initial formulation was found to have a complex impact on patient response process. Highly correspondent transference interpretations were associated with a decrease in Hesitant Acknowledgment and increased Patient Involvement and Confidence. Moreover, transference correspondence was also directly related to Demands on Therapist in the response. In effect, accurate transference interpretations served to increase patient engagement in the interaction with the therapist but were also likely to increase the negative emotional tone of this interaction.

The regression analyses reported above were exploratory in nature. The size of the aggregated dataset did not allow for a random splitting of the sample and cross-validation of the regression findings. Using a formula from Stevens (1986; p. 80), it was, however, possible to estimate the expected size of each multiple correlation if the regression equations were applied to a second dataset. The purpose of a cross-validation is to

evaluate the final regression equation derived from the original sample. Consequently, the formula for the estimated multiple correlation employed only the number of predictors selected in stepwise fashion. The estimated cross-validation R^2 values for each response component are presented in Table 8.

Insert Table 8 about here

The average amount of R^2 shrinkage across the response component regression equations was approximately 8.5% (range = 4.5-11.1%). Despite the shrinkage calculated for cross-validation, a number of the regression equations were expected to continue to account for substantial proportions (15% or greater) of criterion variance. The estimated R^2 values for Dynamic Work, Hesitant Acknowledgment, Patient Involvement, Demands on Therapist, and Patient Confidence allowed for confidence in the regression findings established for these dependent variables. A replication study to establish the stability of the regression results for the remaining response components would be useful.

Response Components and Session Outcome.

Aggregated response scores represented the patients' "typical" response to interpretation. The final two analyses examined which aspects of a "typical" response were associated with outcome at the level of the session and therapy as a whole.

Relationships between the aggregated response component scores and session outcome were examined separately for the indices derived from patient and therapist ratings. Session outcome was measured by the patient's or therapist's ratings of patient disclosure, the patient's

feeling of being understood, patient understanding of and work with therapist interventions, and session usefulness, and by scores on the SEQ dimensions of Depth-Value and Smoothness-Ease. Outcome indices were aggregated across all 20 sessions; the variables represented the mean session outcome for the entire therapy. The Pearson correlation coefficients for the entire sample (N = 60) and for each of the two subgroups of high and low QOR (n = 30) were examined. A Bonferroni adjustment to the alpha (p) level was not applied given the open exploratory intent of these analyses. Despite recommendations by some (Stevens, 1986) to increase alpha to .10-.15 for exploratory investigations, the nominal alpha level of .05 was however retained. Response component-outcome relationships were considered meaningful if one of two correlational patterns was evident:

a) A significant correlation was evident at the level of the entire sample. Coefficients for each subgroup were in the same direction and approached or attained significance. The correlation between the response component and outcome measure thus represented a general relationship common to all patients.

b) A significant correlation at the level of the entire sample appeared to be due to a significant relationship for one QOR subgroup only. The other QOR subgroup demonstrated a weak and/or nonsignificant relationship in the same direction, or tended to demonstrate an opposing relationship. The pattern thereby represented a relationship between the response component and outcome measure that was specific to one QOR subgroup. Correlations for the two subgroups which were in distinct opposition would suggest a differential relationship between the

response component and outcome measure that was mediated by patient QOR.

Five patterns which fulfilled one of the above descriptions were identified among the correlations between response component scores and patient session outcome indices. Given that a total of 72 correlational patterns had been examined, these relationships were held to be due to chance and were not considered further. Fourteen patterns which met one of the above descriptions were identified among the correlations between response component scores and therapist session outcome indices. The number of patterns identified suggested that spurious correlations were less likely; these relationships are presented in Table 9.

Insert Table 9 about here

Four relationships appeared to be general, i.e. common to all patients. A direct relationship was evident between Emotionality and therapist ratings of session usefulness, $r(60) = .30$, $p < .05$. Inverse relationships were evident between Anxious Speech Production and therapist ratings of session usefulness, $r(60) = -.32$, $p < .01$; between Denial and therapist ratings of the patient having felt understood, $r(60) = -.27$, $p < .05$; and between patient responses making reference to familial object relationships and therapist ratings of session Depth-Value, $r(60) = -.39$, $p < .01$. In the last instance, the coefficients for each subgroup attained significance; for the high QOR patients, $r(30) = -.44$, $p < .01$, and for the low QOR patients, $r(30) = -.35$, $p < .05$. Therapists regarded sessions as useful if the emergence of patient affect was associated with interpretation, but less valuable if patient anxiety or content involving

familial object relations characterized the patient's response. Denial, or a patient focus on the motivations of others, indicated to therapists that their understanding of the patient was insufficient. These relationships were independent of the patient's QOR designation.

Five relationships were weighted in favor of and appeared to be specific to one of the QOR subgroups. Hesitant Acknowledgment was directly related to therapist ratings of the patient having felt understood, $r(60) = .27$, $p < .05$; of the patient having understood and worked with interventions, $r(60) = .26$, $p < .05$; and of session usefulness, $r(60) = .26$, $p < .05$. In each instance, the relationship was due to a significant correlation evident for patients in the high QOR subgroup: $r(30) = .45$, $p < .01$; $r(30) = .43$, $p < .05$; and $r(30) = .37$, $p < .05$, respectively. Patient Involvement was directly related to therapist ratings of session usefulness, $r(60) = .36$, $p < .01$, while Emotionality was directly associated with therapist ratings of the patient having understood and worked with interventions, $r(60) = .25$, $p < .05$. These relationships were due to the significant correlations evident for patients in the low QOR subgroup: $r(30) = .57$, $p < .001$, and $r(30) = .36$, $p < .05$, respectively. For high QOR patients, responses characterized by quiet, thoughtful consideration of the interpretation were associated with therapist ratings of patient understanding, work, and session usefulness. For low QOR patients, increased active involvement and affect expression were related to therapist judgements of session value and patient work, respectively.

The remaining five relationships between response components and therapist session outcome ratings were due exclusively to the relationship evidenced for one specific QOR subgroup. Patient Involvement was directly

related to therapist ratings of patient disclosure, $r(30) = .51$, $p < .01$; of the patient having felt understood, $r(30) = .41$, $p < .05$; and of the patient having understood and worked with interventions, $r(30) = .62$, $p < .001$, for low QOR patients. The coefficients for high QOR patients were all near zero in value (-.01, -.08, and -.00, respectively). Emotionality was also directly related to therapist ratings of the patient having felt understood among low QOR patients, $r(30) = .36$, $p < .05$, but not among high QOR patients, $r(30) = -.00$, ns. Again, responses characterized by greater involvement and increased affect were regarded by therapists as especially important for the low QOR patient. Finally, an inverse relationship between patient References to Familial Objects and Links and therapist ratings of the patient having felt understood was evident for the high QOR subgroup, $r(30) = -.36$, $p < .05$, while a null relationship was apparent for the low QOR patients, $r(30) = .01$, ns. The correlation implied that therapists viewed exploration of family relationships by the high QOR patient as less important to understanding than examination of the immediate interaction.

Response Components and Therapy Outcome.

Examination of the relationships between response component scores and indices of therapy outcome employed the strategy followed in the previous section. The three outcome indices, represented for both post-therapy and five-month follow-up, were General Symptomatology and Dysfunction (Factor I), Individualized Objectives (II), and the External Observer Rating (III). Nine of the 72 correlational patterns fulfilled one of the required descriptions provided previously. This number indicated that at least some of the patterns did not emerge as a function of Type I error and were deserving of inspection. Table 10 presents the correlation

coefficients representative of these nine patterns.

Insert Table 10 about here

Five of the nine relationships involved post-therapy outcome factors. Two general relationships involving all patients were evident. Both Hesitant Acknowledgment and Patient Involvement were directly associated with post-therapy change on Factor III, $r(60) = -.28$, $p < .05$, and $r(60) = -.25$, $p < .05$, respectively. Responses characterized by quiet thoughtfulness and/or increased disclosure and Experiencing were directly associated with the independent assessor's rating of improvement at post-therapy for all patients. Three relationships specific to one QOR subgroup were identified among the post-therapy outcome factors. Hesitant Acknowledgment was directly related to improvement on General Symptomatology and Dysfunction, $r(60) = -.28$, $p < .05$, while Denial was inversely related to improvement on Factor I, $r(60) = .30$, $p < .05$. In each instance, the relationship was due to a significant correlation evident for patients in the high QOR subgroup: $r(30) = -.39$, $p < .05$, and $r(30) = .46$, $p < .01$, respectively. Patient Confidence was directly associated with post-therapy change on the External Observer Rating for high QOR patients, $r(30) = -.43$, $p < .05$, but not for low QOR patients, $r(30) = .18$, ns.

Four of the nine relationships involved the Individualized Objectives follow-up outcome factor. Relationships specific to one QOR subgroup were evident for four response components. Patient Involvement was weakly associated with follow-up improvement on Factor II, $r(60) = -.28$, $.05 < p < .10$; the relationship was significant for high QOR patients, $r(30) =$

-.53, $p < .01$, but not for low QOR patients, $r(30) = -.08$, ns. The response dimension labelled References to Familial Objects and Links was directly related to improvement on Individualized Objectives, $r(60) = -.30$, $p < .05$; in this instance, the correlation attained significance for low QOR patients, $r(30) = -.58$, $p < .01$, but not for high QOR patients, $r(30) = -.04$, ns. Two of the specific relationships implied a differential mediation by QOR, and concerned responses involving exploration of the components of dynamic conflict. Dynamic Work was directly related to improvement for high QOR patients, $r(30) = -.49$, $p < .05$; an inverse and nonsignificant relationship was evident for low QOR patients, $r(30) = .26$, ns. In contrast, References to Anxiety and Wish was inversely associated with follow-up improvement for low QOR patients, $r(30) = .50$, $p < .05$, while a direct and nonsignificant relationship was shown for the high QOR subgroup, $r(30) = -.16$, ns.

Correlations between aggregated response component scores and post-therapy outcome were significant in the case of symptomatic remission and the independent assessor's evaluation of current target severity. Responses characterized by Hesitant Acknowledgment and Patient Involvement were associated with the independent assessor's rating of improvement for all patients. The occurrence of Hesitant Acknowledgment in response to interpretation was also associated with symptom relief for high QOR patients. Patient Involvement represented a highly valued increase in patient disclosure and Experiencing, while Hesitant Acknowledgment was assumed to indicate the occurrence of a covert assimilation of the meaning of therapist interpretations perhaps antedating the experience of insight. Both response components thus reflected a form of productive patient process and were related to an independent outcome evaluation at

the termination of therapy. For the high QOR patient, "silent" therapeutic work (Hesitant Acknowledgment) also appeared to have a direct impact on symptom distress. Two other response aspects were important to immediate therapy outcome for the high QOR patient: responses characterized by Patient Confidence were associated with the independent assessor's rating of improvement while the use of Denial was inversely associated with symptom relief. Thus, responses which reflected the high QOR patient's effort to remain active and engaged had a direct effect on post-therapy improvement, while responses which indicated an avoidance of applying the interpretation to understand personal dysfunction were associated with a maintenance of symptomatology.

In contrast, relationships between aggregated response component scores and follow-up outcome attained significance only for the patient's ratings of target severity. The experience of improvement or resolution in personalized objectives may require continued work by the patient following the termination of therapy. Responses characterized by Patient Involvement and Dynamic Work appear important in this regard for the high QOR patient. Disclosure, Experiencing, and the exploration of dynamic conflict in the relationship with the therapist were related to continued improvement for these patients. For the low QOR patient, examination of familial object relationships was directly associated with follow-up improvement on target objectives, while References to Anxiety and Wish was inversely related to improvement. Thus, exploration of the components of dynamic conflict appeared detrimental to further change for the low QOR patient, while understanding of problematic familial relationships appeared to be more important for continued benefit. Notably, this understanding involved a focus on relationships outside of therapy that

may have had a direct bearing on the relationship between patient and therapist.

DISCUSSION

ORIENTATION OF PRESENT STUDY TO CURRENT PSYCHOTHERAPY PROCESS RESEARCH

A "new paradigm" has emerged in the field of psychotherapy process research during the past decade. Proponents of this revised approach (Elliott, 1983; Greenberg, 1986; Greenberg & Rice, 1984a,b; Hill, 1982; Marmar, 1990) have recommended that investigators consider "patterns of change" in the therapy process. Rather than study groups of patients with similar characteristics (e.g. diagnostic or personality features), emphasis is placed on the examination of groups of episodes where the patient-therapist interactions bear similarities. Episodes, or "change events", are selected because of their clinical meaning. The immediate context of the episode is regarded as crucial to the therapeutic process being observed. The task is to empirically observe what patient behaviors ("performance strategies"; Greenberg & Rice, 1984a) are set in motion by what therapist interventions at what particular points in therapy, and to identify those strategies essential for favorable change. The ideal study would take into account the interrelationships between different aspects of the process, the treatment context, the therapy relationship, and the characteristics (e.g. patient pathology, therapist experience) of the two participants. A major implication of the new paradigm is that outcome is not considered to be a simple, static phenomenon best measured at termination or any single point, but rather as a fluid and continuous process itself. Consequently, a therapist intervention (a "process") can have various outcomes, ranging from its immediate impact within the session (a "process-outcome"), to an intermediate impact following the session, or to the ultimate impact at termination or follow-up of therapy (Marmar, 1990). This reconceptualization has led to investigations that

seek to elucidate the relationships between process and outcome variables that are more closely linked in time. These studies are characterized by a focus on much smaller research units, i.e. "episodes" and their outcomes, rather than "cases" and treatment outcomes.

The present study represented an attempt to move in the direction of the new paradigm for psychotherapy process research. Efforts were made to fulfill many of the specific recommendations advanced by Spiegel and Hill (1989) for improved research on the impact of interpretation:

a) Episodes of patient-therapist interaction during which the therapist provided an interpretation were selected because of the central place of this technique in the practice of dynamically-oriented individual psychotherapy. A rigorous operational definition of interpretation (the TIRS) was employed and the identification of interpretations was done with high reliability.

b) The naturalistic observation of episodes from 60 completed cases of STI therapy in a psychiatric outpatient clinic provided the study with strong external validity. Multiple moderating variables [e.g. patient pretreatment characteristics, the "nonspecific" factor of the therapeutic alliance (Strupp & Hadley, 1979)] were also assessed.

c) The study provided for the identification of <u>multiple</u> causal factors associated with the patient's response, rather than assuming a single underlying mechanism for the impact of interpretation. In similar fashion, multiple <u>impacts</u> of interpretation were considered in the construction of a battery of patient process measures.

d) The study considered the impact of interpretation over time by assessing relationships between the patient's "typical" response and session/therapy outcome.

e) As a move towards delineating criteria for the timing of interpretation, emphasis was placed on the exploration of the context of interpretive interventions and an initial definition of the construct of patient "readiness".

A single study cannot, however, fulfill all recommendations suggested in the literature. The present study did not include a multidimensional assessment of therapist interpretations (Schaffer, 1982) nor were measures taken of the impact of noninterpretive interventions (Garduk & Haggard, 1972). Interpretation episodes were randomly sampled without requiring that a significant pattern of change had been manifested. The relationships between process and outcome indices were confined to measurements taken at isolated intervals, i.e. the sequences of relationships among process and outcome variables were not considered. Practical or statistical constraints associated with the study meant that the assessment of process dimensions or predictor variables was limited to a select number.

The present study has three advantages relative to previous investigations in the literature (e.g. Silberschatz et al., 1986). First, the data involved a large number of interpretation episodes from a sizable sample of completed therapy cases. Second, the STI project provided a substantial pool of information that permitted examination of process-process and process-outcome relationships. Third, attention to likely differential relationships for patients who varied on an important personality characteristic (Piper et al., 1990) was possible given the

differentiation of the patient sample on the QOR assessment.

Discussion of the findings of the present study will focus on the results of the separate analyses in turn. Suggestions for future data analyses and investigations will be addressed throughout the following material. The discussion will then consider how the findings can be understood in terms of a "generic model of psychotherapy" (Orlinsky & Howard, 1986). The general limitations of the investigation will be reviewed and, by way of conclusion, clinical implications of the present findings will be considered.

THERAPIST BEHAVIOR AND PATIENT RESPONSE TO INTERPRETATION

The form of the therapist's dynamic interpretation was not found to be associated with the "nonwork-work" distinction based on the patient's response. Therefore, the duration (i.e. amount of information) and/or content (i.e. references to dynamic components, objects, or object links) of interpretations did not differ within episodes classified generally as "unsuccessful" ("nonwork") or "successful" ("work"). Interpretations may have differed on dimensions not assessed in the present study, e.g. tentativeness, phrasing, or interpersonal manner (Wachtel, 1980), skill (Schaffer, 1982), therapist intention (Hill & O'Grady, 1985), or therapist Experiencing (Klein et al., 1986). A multidimensional assessment of therapist interpretations would be required to determine the degree of association between these interpretation aspects and the "work" classification of the patient's response.

While there were no differences in the form of interpretation, "work" episodes were generally characterized by less therapist activity, in terms of both number and duration of therapist interventions. This difference was particularly marked for the response segment. The lower level of

therapist activity during "work" episodes was specific to the categories of intervention serving the purpose of refining the immediate therapeutic focus, i.e. question, clarification, and confrontation. During the precondition segment of a "work" episode, the patient likely addresses a problem issue with sufficient clarity that the therapist need not intervene to address perceptual distortions or defensive avoidance. The interpretation provided in this context is accepted by the patient as a means to carry problem understanding forward, rather than as critical or intrusive. During the response segment, the patient continues to develop an awareness of various aspects of the problem and makes appropriate use of the interpretation during this elaboration. Again, the process engaged in by the patient is of sufficient quality that the therapist can allow it to proceed with minimal "interference". During "work" episodes, therefore, patients are likely engaged in an ongoing and productive process that therapists can best encourage by allowing it to develop unimpeded. Interpretations during "work" episodes likely act to stimulate further patient exploration; rather than address an obstructed or stalled process, they act to promote or enrich a "flow" already established. The results of this analysis therefore suggested that "work" responses to dynamic interpretation are largely the end product of a patient-driven process, facilitated by the interpretation.

If this view of therapist activity during "work" episodes is correct, identification of productive process on the part of the patient prior to the interpretation should be possible. The characteristics of patient engagement in useful therapeutic activity prior to interpretation, i.e. "readiness", was the subject of the discriminant function analysis conducted on precondition process rating measures.

PRECONDITION PROCESS AND PATIENT RESPONSE TO INTERPRETATION

A weighted composite of eight precondition process rating measures was identified in the discriminant function analysis. The composite was indicative of a general dimension of patient readiness for "work" in response to interpretation. "Work" in this context was directly associated with the patient's maintenance of a focus on self and the material addressed by the interpretation, and the provision of a contribution which significantly adds to the meaning of the therapist's intervention. The patient in-therapy behavior represented by the composite was thus analogous to the patient-driven process associated with "work" episodes described in the previous section.

The weighted composite suggests that patient "readiness" for work in response to interpretation is defined by the degree of integration evident across channels of patient communication on a dimension where a focus on internal processes is the preferred orientation. Each of the eight variables making up the composite implied a patient emphasis on subjective experience. This dimension of subjective-objective focus in turn cut across the three language measurement categories (extralinguistic, intersubjective, and content) and the two coding strategies (classical and pragmatic).

A patient manifesting high "readiness" prior to an interpretation would be observed to:

a) speak slowly but in a sustained manner for the duration of the precondition segment (extralinguistic variables assessed from a classical approach);

b) evidence a vocal style indicative of "tracking inner experience and finding a way to symbolize it in words" (Rice & Kerr, 1986;

p. 77) in contrast to a style with a "premonitored quality", reflecting "an effort to produce some effect in the outside world" (extralinguistic variables assessed from a pragmatic approach);

c) express an interpersonal intent comprising personal disclosure and thoughtful reflection of the therapist's interventions (intersubjective variables assessed from a pragmatic approach);

d) provide material having less to do with "other" individuals and more to do with self and/or central relationships (content variable assessed from a classical approach); and

e) present problem issues in a manner which reflects the use of immediately emerging affective material (content variable assessed from a pragmatic approach).

The weighted composite of precondition measures provided for a statistically significant discrimination of "nonwork" versus "work" in the patient's response. The composite also had a clear conceptual meaning in defining the nature of productive therapy process immediately preceding the therapist's provision of a dynamic interpretation. However, the composite accounted for only a small proportion of the variance represented by the "nonwork-work" classification. This finding implied that other factors influence the nature of the patient's response, providing a rationale for the regression analyses discussed below. Two statistical reasons can also be offered to explain this poor discriminative ability. First, the episode sample was comprised of multiple observations within each of a number of therapy cases. There was assurance that the assumption of independent observations had been adequately fulfilled in a repetition of the analysis on a reduced dataset

adjusted for autocorrelation. Nonetheless, it remained possible that systematic variance attributable to specific patient-therapist pairings accounted for a majority of the total variation evident between "nonwork" and "work" episodes, minimizing the proportion of variance potentially attributable to the weighted composite. Second, the moderate reliability of many of the process rating variables meant that a sizeable amount of extraneous variation was involved in discriminating the two groups of interpretation episodes. A third reason, from a conceptual perspective, concerns the generality of the "work" classification that represented the discriminative criterion for the analysis. The demarcation between "nonwork" and "work" episodes was not sharply defined because of problems associated with identifying the category of Descriptive Work. As a consequence, the discrimination of an episode involving this form of patient response was likely a function of chance; for the analysis as a whole, the large proportion of Descriptive Work episodes served to compound this problem. It is not surprising in this regard that the classification function derived from the discriminant analysis was more useful in improving the accuracy of prediction for "nonwork" rather than "work" episodes.

The discriminant function analysis was successful in defining a patient behavioral constellation that was associated with a general classification of "work" in the response to interpretation, despite the likely presence of extraneous error variance in the analysis. Refinement of this behavioral constellation is possible in future investigations by employing independent episodes from distinct therapy cases, by improving the reliability of process rating measures, and by using a more rigorously defined measure of response activity. The analysis surely raised the

possibility that an observant therapist could attend to the dimensions comprising the behavioral constellation indicative of "readiness" and thereby perhaps improve upon the timing of interpretive interventions.

THE IMPACT OF INTERPRETATION: DIMENSIONS OF PATIENT RESPONSE

The principal components analysis conducted on measures of response process underscored the complexity associated with gauging the impact of therapist interpretation. The analysis indicated that the immediate effect of interpretation is not consistently positive or negative, but will vary on a number of dimensions. This general finding suggests why previous research attending to single response dimensions has been equivocal regarding the "true" impact of interpretation.

The expected effects of interpretation as outlined in the clinical and theoretical literature were discussed in the Introduction. Response dimensions representative of multiple effects were identified in the principal components analysis. Dimensions crucial to the evaluation of an interpretation's impact, as discussed in the literature, and their counterparts from the analysis included: anxiety (Anxious Speech Production) and therapeutic resistance (Demands on Therapist, Denial); the experience of strong affect (Emotionality); content indicative of "relaxed defenses" (Dynamic Work, References to Anxiety and Wish); and patient self-observation (Hesitant Acknowledgment, Patient Involvement). The remaining response components were representative of the patient's degree of engagement in the tasks of therapy (Internal-External Focus, Patient Confidence) or the patient's focus on content areas specific to relationship patterns (References to Familial Objects and Links, Relational Work). The analysis indicated that any or all components can be manifested in the patient's response. Therefore, exclusive attention

to single dimensions of patient response in future research is not recommended as this provides only a partial and distorted view of the immediate effect of interpretation on patient process.

Eight response components could be clearly regarded as defining productive or unproductive therapy process. These components could also be differentiated on the basis of whether they represented dimensions important to a general understanding of the psychotherapy process or to a specific appreciation of the psychodynamic approach. Patient Involvement represented an increase in the highly valued behaviors of disclosure and patient Experiencing. Patient Confidence was regarded as a basic constituent of productive process, i.e. a behavioral reflection of the patient's commitment to be actively involved in the therapeutic interaction. Patient Involvement and Confidence can thus be regarded as dimensions important to fundamental views of productive process. Anxious Speech Production was seen to depict a response indicative of the patient's feeling "threatened" by the interpretation. Denial was regarded as a passive form of resistance (in contrast to Demands on Therapist). Anxious Speech and Denial could therefore be viewed as essential characteristics of unproductive therapy process. Responses tending to either pole of the Internal-External Focus dimension were seen as indicative of generally productive (Internal) or unproductive (External) therapy process. Three response components were associated with productive process specific to the psychodynamic approach. Dynamic Work represented a "psychoanalytic focus" on the part of the patient, the response content concerning attempts to manage conflict and simple linkages between affect, thoughts, and behavior. References to Anxiety and Wish also depicted a "psychoanalytic focus" on core motivational

influences but apparently occurred less frequently than Dynamic Work. Relational Work was another content-oriented response dimension, reflecting the patient's focus on the pervasiveness of relationship patterns. It is important to note that these eight response components differed along the same lines on a method factor. Those which afforded a general description of the psychotherapy process were comprised of residual gain variables, while components uniquely descriptive of the psychodynamic approach were defined by response-only ratings. This distinction raises the perennial question of whether psychodynamic constructs are capable of being measured with existing process instruments or require specialized rating systems (Luborsky & Spence, 1978).

The remaining four components could not clearly be distinguished as indicative of productive or unproductive process. Emotionality represents the emergence of affect in the response to interpretation which may be crucial to further understanding. Responses characterized by extreme scores on this dimension could however prove disruptive to further interpretive work. Demands on Therapist could represent a useful response in terms of informing the therapist's understanding of repetitive maladaptive interpersonal patterns. Once again, an extremely oppositional response could result in a therapeutic impasse or greater therapist caution in addressing central problem issues (Thompson & Hill, 1988). References to Familial Objects and Links likely represented a response dimension relevant to the comprehension of historical influences on current relationship problems. A tendency to focus exclusively on this material may, however, preclude patient awareness of similar dynamics in extra-therapy relationships or indeed the therapy relationship itself. These three response components may therefore have a curvilinear

relationship to productive therapy process, an "optimal level" on each dimension in the patient's response being related to ongoing therapeutic work.

The most enigmatic response component was represented by Hesitant Acknowledgment. In simple terms, Hesitant Acknowledgment indicated a response characterized by a decrease in the patient's verbal production (Garduk & Haggard, 1972) and a "fractured" communication style. As talk represents the currency of psychotherapy, this response aspect appeared to indicate a deficit in the ongoing process. However, an increase in the use of the Acknowledge and Confirm verbal intentions also loaded on this component. The patient thus "maintains contact" with the therapist by providing indications of the interpretation's worth or validity. Hesitant Acknowledgment may represent the patient's effort to put the therapist on "standby" while implications of or associations to the interpretation are evaluated privately. The component implies that the patient requires a larger allocation of attention to affective and cognitive processing of the interpretation, i.e. ambiguous or multiple meanings may be evoked by the interpretation eliciting a Hesitant Acknowledgment response. Necessarily, attention is allocated away from further dialogue with the therapist. The response component may thus signify the subsequent emergence of new material or the development of insight, i.e. Hesitant Acknowledgment suggests a "delayed impact" of interpretation. Relationships between Hesitant Acknowledgment and indices of session and therapy outcome confirmed that the response component was indeed representative of an important constituent of productive therapy process (see below). The response component can thus be grouped with those dimensions affording a general understanding of the process of

psychotherapy.

Three noncompeting models to explain the underlying mechanisms that account for the effectiveness of interpretation have been suggested by Claiborn (1982) and reviewed by Spiegel and Hill (1989). The relationship model defines interpretations as effective in producing change because of their enhancement of the therapy relationship (represented by Strupp & Binder, 1984). The discrepancy model (Levy, 1963) views the patient as an information processor who is influenced by the therapist's discrepant view as embodied in the interpretation. Finally, the content model (represented by Brenner, 1976) attributes change to the meaning and specific wording given by the therapist's interpretation. The principal components analysis identified multiple effects of interpretation, different effects perhaps being attributable to the actions of these three underlying mechanisms. In other words, the results of the analysis indicated that the three models may in fact describe mechanisms simultaneously operative in the provision of interpretation. For example, effects attributable to the relationship model could be represented by the Patient Involvement, Demands on Therapist, Patient Confidence, and Denial response components. The discrepancy model might be responsible for the effects associated with the response components Internal-External Focus, Hesitant Acknowledgment, Emotionality, and Anxious Speech Production. Effects attributable to the content model may be represented by those response components identified earlier as specific to the psychodynamic approach. It is thus possible that the response components identified in the present study are the observable representations of the effects of these underlying mechanisms for the impact of interpretation. An important objective for further research is to refine the measurement of

these dimensions of response and the manner by which each is representative of the underlying mechanisms, and further to define more concretely how the action of these mechanisms of interpretation translate into favorable therapy outcome. The regression and response component-outcome analyses conducted in the present study represented initial steps in this direction.

PREDICTING PATIENT RESPONSE TO INTERPRETATION

Luborsky et al. (1979) showed that individual differences and symptom severity, the therapeutic alliance, and precondition process were all associated with the patient's response to transference interpretation. In the present study, patient characteristics, the alliance, and "readiness" for work in response to interpretation all proved to be important predictor variables in the regression analyses. The analyses indicated further that characteristics of the interpretation itself were important to the prediction of patient response. Overall, characteristics of the interpretation and patient individual differences proved to be the more powerful predictors. However, each type of predictor variable was not found to be associated with each response component, i.e. different combinations of the predictor variables were related to different aspects of the patient's response. While the alliance and patient "readiness" were significant predictors in only one and two regression analyses, respectively, these relationships were nonetheless of some import.

The performance of predictor variables representative of characteristics of the interpretation was contrary to expectations based on findings in the literature. Numerous studies have identified significant effects of interpretation on immediate outcome (Elliott et al., 1982; Hill, Carter, & O'Farrell, 1983; O'Farrell, Hill, & Patton,

1986; Hill et al., 1988) but, in general, therapist response modes (different categories of intervention including interpretation) have been found to account for only a small proportion of the variance on these measures (Hill, 1990). For example, Hill et al. (1988) found that response modes accounted for only 1% of the variance in immediate outcome, whereas individual differences between cases accounted for about 40% of the variance (see also Elliott et al., 1982; Frank, 1979; Gomes-Schwartz, 1978; Sachs, 1983). In the present study, however, the focus was not only on a single therapist response mode but also on the salient aspects of interpretation held theoretically to elicit a significant impact on patient process. In similar fashion, the assessment of immediate outcome was not restricted to general variables in isolation but instead involved a multidimensional perspective on various categories of the patient's communication. Previous studies can perhaps be faulted for employing overly broad measures of therapist intervention and immediate impact, i.e. the generality of the measures may have masked significant relationships between specific aspects of interpretation and patient response. In the present study, attention to the different facets of intervention and impact resulted in the identification of substantial and significant relationships.

Transference Correspondence.

To achieve accuracy of interpretation, French (1954) recommended that the therapist first identify the central relationship pattern (the nuclear conflict) and then select interpretations which address this conflict. French's (1954) principle is similar to the method used in the present study to assess the correspondence of transference interpretations, i.e. the degree to which the content of the interpretation matched the

therapist's description of relationship patterns embodied in his/her initial formulation of the patient's problem. Transference correspondence was identified as one of the most powerful predictors in regression analyses on the response components. The selection of this predictor in four of the twelve analyses indicated that an accurate transference focus was directly associated with an active patient engagement in the therapeutic interaction. Specifically, transference interpretations of high correspondence apparently stimulated the patient's interest in actively examining the therapy relationship as a means to self-understanding (Patient Confidence); acted to preclude a quiet contemplation of the interpretation in favor of active dialogue (Hesitant Acknowledgment); and were directly related to increased patient disclosure and Experiencing (Patient Involvement). The greater patient engagement associated with accurate transference interpretations was not, however, necessarily positive in tone. Transference interpretations of high correspondence were also associated with more oppositional/demanding responses from the patient (Demands on Therapist).

The finding of a direct relationship between accuracy of transference interpretation and Patient Involvement is at variance with the results of Silberschatz et al. (1986). Those authors report no relationship between the provision of transference interpretations, including those rated as "plan-compatible", and residual gain in patient Experiencing from precondition to response. The degree of specificity in the assessment of interpretation could account for this difference. Silberschatz et al. (1986) define an interpretation generally as "any intervention in which the therapist suggests or implies an emotional content in the patient over and above what the patient has already said" (p. 647). A transference

interpretation is defined generally as "any interpretation directed toward the patient's feelings about the therapist or therapy" (p. 647). In the present study, interpretations were those therapist interventions which addressed a specific dynamic component(s); qualitatively, transference interpretations addressed the specific dynamic relationship being enacted between patient and therapist.

Different approaches to the measurement of interpretation quality may also be responsible for the divergent findings. Ratings of "correspondence" address the match between the therapist's initial problem formulation and interventions based on his or her appreciation of immediate transactions with the patient. "Correspondence" reflects how clearly the interpretation represents the hypothesized patient conflict in accordance with a classic dynamic model, i.e. understanding and insight are encouraged by accurately identifying the patient's recurrent relationship pattern in the immediate therapy situation. The therapist's formulation therefore has heuristic value. Correspondence ratings, however, assumed the validity of the therapist's hypothesis, i.e. the formulation was regarded as correct. This assumption could be considered empirically by examining the agreement between therapist formulations and those provided by independent judges (e.g. a consensus formulation among clinical observers or a "core conflictual relationship theme" prepared by a trained rater), i.e. a study of "convergent validity". Correspondence ratings also assumed that the therapist's formulation did not undergo major revision across the course of therapy. Any change in the formulation was assumed to reflect refinement of the initial model, allowing for correspondence ratings to retain their meaning. On the other hand, change in the therapist's "working model" of the patient's conflict

could act to moderate the relationships obtained with the correspondence measure, perhaps explaining the relatively small correlations obtained in the present analysis. A study requiring therapists to provide formulations at each phase (early, middle, late) of therapy, with correspondence ratings based on these successive formulations, would be useful in evaluating this issue. These considerations represent directions for further empirical development of the correspondence rating procedure.

In contrast, ratings of "compatibility" address the degree to which the interpretation passes the test of "disconfirming the patient's unconscious pathogenic beliefs" based on an independently formulated "plan diagnosis". "Compatibility" represents a complex judgement of how well the therapist's interpretation attains a hypothetical ideal in accordance with an alternative dynamic model, i.e. change is encouraged by interpretations which conform to the patient's "strategy" for therapy. An intriguing question for future research would be to determine the relationships between the different approaches to assessing interpretation quality represented by "correspondence" and "compatibility".

Frances and Perry (1983) have offered guidelines for the timing of transference interpretations in "focal therapy". Transference interpretations are held to be appropriate when a) conflicts revealed in the transference directly reflect conflicts responsible for the presenting problem; b) transference distortions have disrupted the therapeutic alliance; and/or c) transference feelings have reached a "point of urgency" and/or represent a major resistance (p. 407). By encouraging greater patient engagement in the relationship with the therapist, accurate transference interpretations, as defined in the present study,

appeared to fulfill each of the above guidelines. Thus, accurate transference interpretations may act to a) promote patient understanding of relationship patterns evident historically, currently, and in the immediate therapy relationship (Patient Involvement); b) improve the therapeutic alliance (Patient Confidence); and c) facilitate the emergence of material the patient has kept private (Hesitant Acknowledgment) or which provides the therapist with more information about distinct transference potentials serving the purpose of resistance (Demands on Therapist).

Dynamic Correspondence.

Beyond the match between the therapist's transference interpretation and recurrent relationship patterns identified in the formulation, "accuracy" in the present study also referred to the correspondence of references to dynamic components of the patient's hypothesized conflict. Correspondence of dynamic references was found to be directly associated with the occurrence of Patient Involvement, the latter based on an aggregate score. The predictor (DYNCORM) was the mean correspondence rating across all dynamic components referenced by the therapist in a given interpretation, with mean ratings then aggregated across episodes for the case. The variable thus represented the global level of correspondence shown by the therapist when providing interpretations regarding the patient's dynamic conflict. The finding that correspondence of dynamic references is directly associated with increased disclosure and Experiencing in the patient's response replicates the finding of Crits-Christoph et al. (1989) at the level of immediate outcome. In that study, "accuracy" of interpretation was found to be positively correlated with therapy outcome as assessed by the patient, therapist, and a clinical

observer. "Accuracy" was defined by the content match between the therapist's interpretation and components of the "core conflictual relationship theme", an independent, structured formulation of the patient's conflict. The CCRT comprises three components: Wish, Response from Other, and Response of Self. These elements of the CCRT parallel the components of wish, anxiety (i.e. fear of consequences involving another), and maladaptive outcome (i.e. problematic responses of self) drawn from therapist formulations in the present study. The significant correlations with outcome were derived for an accuracy measure representing the combined ratings for Wish plus Response from Other. Therefore, the Crits-Christoph et al. (1989) finding also points to the importance of the global accuracy of therapist interpretations directed at explicating the patient's dynamic conflict. In similar fashion, Sachs (1983) reported that the successful therapists from the Gomes-Schwartz (1978) study used more consistent and focused interpretations than their less effective counterparts. Taken together, the findings from the present study and Crits-Christoph et al. (1989) indicate that a generally accurate representation of the patient's conflict in the therapist's interpretations is directly associated with productive response process and beneficial treatment outcome, respectively.

Frequency of Transference Interpretations.

Transference correspondence refers to the accuracy of interpretations drawing attention to perceptual distortions of the immediate therapy relationship. In Schaffer's (1982) terms, correspondence represents the dimension of therapist skillfulness in providing interpretation. A second dimension, the type of interpretation provided, was represented in part by the distinction between nontransference and transference interpretations.

Frequency of transference interpretations was found to be inversely associated with the occurrence of Dynamic Work in the patient's response. In turn, Dynamic Work was found to be important to the follow-up outcome of high QOR patients (see below). This finding of an inverse relationship between frequency of transference interpretation and a measure of patient process is consistent with previous work done in the STI project, i.e. among the high QOR patients, higher proportions of transference interpretations were associated with poorer alliance and therapeutic outcome (Piper, Azim, Joyce, & McCallum, in press). Transference interpretations may be employed by the therapist when there is high patient resistance and/or when there is a need to strengthen an alliance threatened by transference distortions. Ideally, the interpretation should elicit greater patient awareness of the relationship dynamic being expressed with the therapist and a working through of the difficulty in the immediate therapy context. Dynamic Work may be a useful response in this regard, as it involves a patient focus on the defensive operations perhaps motivating the resistance or misalliance. The response may also contribute to the patient's sense of collaboration with the therapist in comprehending sources of interpersonal conflict. However, an overzealous use of transference interpretations may inhibit this development (and possibly initiate a recurrent cycle; Piper et al., in press), with consequent negative effects on process, the alliance, and eventual outcome--particularly for the high QOR patient.

Frequency of Dynamic References.

Type of interpretation was also represented by the character of the dynamic component(s) addressed by the intervention. Interpretations which addressed the wish component were found to be directly associated with an

internal focus and greater Patient Confidence in the response. Attention to unconscious needs and impulses was therefore seen to encourage the subjective focus required by the patient for engagement in the therapy process. Reference to latent wishes may also have been perceived by the patient as the therapist's effort to understand the patient's motivations, which increased the patient's confidence in and mitigated against withdrawal from the collaborative enterprise. An interpretation reference to the wish component was also identified as inversely associated with patient References to Anxiety and Wish in the response. This finding was explained by suggesting that therapist references to core dynamic components supplanted patient identification of the same elements, while encouraging a subjective focus and increased confidence. However, it is also likely the finding represents an artifactual relationship given the scoring criteria for the Patient Response to Interpretation measure, i.e. the patient had to refer to components not addressed by the (wish) interpretation for the response to receive a rating of Dynamic Work.

Interpretations addressing the patient's fears were found to be directly associated with response content concerning familial object relations. The process context may be important to this relationship, i.e. a discussion of family rules and prohibitions may require interpretation of the patient's fears of contravention and the impact of these fears on current and in-therapy functioning. Foreman and Marmar (1985) report that interpretations which addressed patient fears contributed to improvement of the therapeutic alliance. The development of a perspective on family history and its repetition in the therapy relationship may therefore be an important element in the development of a healthy alliance. References to Familial Objects and Links was directly

associated with follow-up change for the low QOR patient group. Further study of this response component may be important to understanding the "necessary conditions" of therapy with low QOR patients (see below).

Interpretation references to the patient's use of defensive maneuvers was not selected as a predictor in any of the regression analyses on the response components. Patient references to their conscious use of defensive operations were identified as elements of the Dynamic Work component. With regard to productive therapy process, these findings suggest that it may be more important for patients to identify on their own the strategies employed to avoid or minimize the experience of conflict.

Interpretation Complexity.

Complexity was represented by the proportion of episodes drawn from a particular therapy which involved interpretations addressing two or more dynamic components. Complex interpretations were therefore similar to interventions of marked "discrepancy" or "depth" found to have negative effects in analogue (e.g. Claiborn, Wood, & Strong, 1981) and field (Speisman, 1959) research studies. The present study confirmed that complex interpretations inhibit the patient's contribution to the therapy process. Specifically, interpretation complexity was found to be inversely associated with the occurrence of Patient Involvement, Demands on Therapist, Patient Confidence, and Anxious Speech Production. The strongest prediction involved the inhibition of Patient Confidence. Complex interpretations therefore elicited greater patient withdrawal, precluded the development of disclosure and Experiencing, and inhibited the occurrence of oppositional responses which might provide important material for further examination. At the same time, complex

interpretations were also likely to allay patient expressions of anxiety in the response. As noted in the presentation of theory regarding interpretation, some optimal level of anxiety may however be necessary to the further development of productive process (Greenson, 1967). Thus, while complex interpretations suggest that the therapist "does all the work" in presenting a prepackaged representation of the patient's conflict, the results also indicate that "deep" interpretations will seriously limit the patient's sense of and active involvement in the therapy process. These effects would likely vitiate the strength of the therapy alliance and be counter to the development of treatment benefit.

Patient "Readiness".

The predictor variable drawn from the discriminant function analysis of precondition process ratings and aggregated across episodes emerged as significant in two stepwise regression analyses. Patient "readiness" was directly associated with the emergence of Dynamic Work and/or Patient Involvement in the response. The power of the independent variable to predict a specific category of the Patient Response to Interpretation Scale and a response dimension adjusted for precondition scores on shared measures (Disclosure and Experiencing) suggested that these relationships were not spuriously based on a confounding of the predictor and dependent variables. The development of a "psychoanalytic focus" in response to interpretation was therefore dependent on the existence of an integrated concentration on subjective material prior to the therapist's intervention. In analogous fashion, interpretations provided when the patient evidenced high "readiness" were likely to result in increased disclosure and Experiencing. This latter result does not confirm the findings of Hill et al. (1988) who reported that interpretations elicited

increased patient Experiencing only when the level of Experiencing was low preceding the therapist's intervention. Again, a narrow focus on single measures of patient process in the Hill et al. (1988) study versus the use of multidimensional measures of patient precondition and response process in the present study may account for these different findings. Further research should examine whether the degree to which the patient manifests an internal orientation on additional, non-content communication dimensions determines the increase in Experiencing possible following interpretation.

The Therapeutic Alliance.

The independent variable representing the patient's assessment of the therapeutic alliance (averaged across ratings provided after each third of therapy) proved significant in only a single regression analysis. The patient's perspective on the alliance was inversely related to the Demands on Therapist response dimension. In other words, the patient's perception that a collaborative, helping relationship was evident with the therapist made it less likely the patient would be oppositional in response to the therapist's interpretations. A strong alliance may therefore inhibit a negative response to an accurate transference interpretation and allow for greater examination of the dynamics in the immediate therapy relationship. In this regard, the alliance may act as a "permissive factor" for therapeutic work by minimizing the patient's tendency to respond defensively or with hostility and facilitating the occurrence of more productive patient responses. A healthy and resilient alliance is likely required early in therapy in order for beneficial process to emerge later.

Other Patient Characteristics.

As noted above, predictors representing aspects of the interpretation itself performed as well or better than predictors reflecting patient characteristics. This level of prediction was seen as a benefit of employing interpretation characteristics as independent variables rather than therapist response modes of which interpretation is only a single example. Predictive relationships between patient characteristic variables and specific response dimensions proved informative about the nature of the response pattern in question.

Acuity of symptom distress was found to be predictive of an internal focus, private assimilation of the interpretation (Hesitant Acknowledgment), and patient references to core dynamic components (References to Anxiety and Wish) in the response. Acuity of distress is associated with the often transitory, "breakthrough" nature of the symptoms and is not synonymous with the degree of patient psychopathology. Distress associated with acute symptoms may increase patient motivation to engage in the tasks of therapy, i.e. to maintain a subjective focus, to thoughtfully consider the meaning of therapist interventions, and to engage in a discussion of the psychological conflicts underlying symptom development. Symptom distress may also make patients more amenable to adopting the therapist's viewpoint on the presenting problem, in this instance implicitly agreeing to the psychodynamic perspective.

Therapist ratings of the patient following the second session were found to be highly correlated and best represented by a global factor representative of the "good therapy patient". A patient scoring highly on this dimension was seen by the therapist as psychologically minded,

motivated for therapy, able to respond to interpretation and interact meaningfully with the therapist, and also to be likeable. This global impression was directly associated with patient responses indicative of Hesitant Acknowledgment and/or Patient Involvement. Therapists therefore value those patients who respond to interpretive comments with increased disclosure and affective involvement, or who tend to thoughtfully evaluate the meaning of the interpretations provided. Spiegel and Hill (1989) have suggested that patients with the characteristics of psychological mindedness and cognitive complexity are best suited to working productively with interpretation (see McCallum & Piper, 1990a). Relationships identified for the "good therapy patient" predictor tended to support this hypothesis. A dimension of interpersonal complementarity is also implied in the therapist's global impression. Ongoing research employing measures such as the Structural Analysis of Social Behavior (SASB; Benjamin, 1979) may prove informative about this aspect of the predictive relationship.

The global rating of the patient's quality of object relationships was employed as a predictor variable in the response component regression analyses. Employing QOR as a continuous independent variable capitalized on the dimensional nature of the construct. Examination of relationships between response components and session/therapy outcome in subsequent analyses capitalized on QOR as a categorical variable, i.e. provided insight into possible interactions between high versus low quality of object relations and therapy process-outcome relationships. As a predictor, the global QOR rating emerged as significant in a single analysis, being directly associated with the occurrence of Hesitant Acknowledgment in the response. Patients with a history of mature object

relationships are likely to present with more resilient self-esteem and may therefore be better able to absorb and assimilate even those interpretations that are painful to consider. In essence, this finding suggests that a higher level of QOR may represent a "trait" capacity to engage in interpretive therapy.

The patient's expectation that therapy involved the active discussion of feelings was directly associated with Patient Confidence, and content references to core dynamic components and familial object relations. This expectation is certainly congruent with the rationale of therapy and thereby facilitative of patient's active engagement in the process. Such an expectation is also congruent with the aims of the therapist and may therefore encourage convergence of a shared perspective on the approach to problem resolution valued by the psychodynamic approach. The relationships identified for this predictor variable underscore the importance of an adequate "state" preparation for the tasks of therapy.

Finally, there were no significant relationships identified between any of the independent variables and the Emotionality, Denial, and Relational Work response dimensions. The clinical literature provides anecdotal evidence that interpretation can elicit affective reactions. It may be possible that other variables, not assessed in the current study, are predictive of this impact of interpretation. A likely candidate for this relationship is the interpersonal manner with which the therapist conveys the interpretation (Schaffer, 1982). An expanded multidimensional assessment of therapist interventions (i.e. of therapist intentions) is required to identify the characteristics associated with patient Emotionality.

Patient denial can be regarded as taking many forms. The Denial

component thus likely represented a general form of response comprising heterogeneous "subtypes", lowering the likelihood of significant relationships with the predictor variables. The paucity of significant relationships with Relational Work was held to be due to the low frequency of occurrence for this response dimension. The small proportion of Relational Work in the episode sample and the absence of significant relationships between this response dimension and measures of session/therapy outcome again suggest the need for further revision of the nominal Patient Response to Interpretation rating scale.

RESPONSE COMPONENTS AND SESSION OUTCOME

Relationships between response component scores and session outcome indices attained substantial size and significance for therapist ratings only. Gomes-Schwartz (1978) reports similar findings and suggests that therapists offer a unique perspective on outcome evaluation. In the case of the relationships reported in the present study, the assumption is that the therapist used his or her experience to gauge the patient's response for its contribution to ongoing progress in the session and across therapy.

For all patients, therapists rated the occurrence of Emotionality in the response to interpretation as directly associated with session usefulness. Affect is the raw material for dynamic psychotherapy and was likely seen by the therapists as the basis for further examination of the patient's conflicts. In contrast, patient responses reflecting Anxious Speech Production (threat) were inversely associated with therapist ratings of session usefulness, and patient responses reflecting Denial (passive resistance) were inversely associated with ratings of the patient having felt understood. These relationships accord well with clinical

experience. Patient responses involving content concerning familial object relationships were inversely associated with therapist ratings of session Depth-Value. This latter relationship is contrary to expectation. In the present study, interpretation of patient fears was associated with a patient content focus on familial relationships. As noted above, Foreman and Marmar (1985) report that interpretation of patient fears was associated with improvement in the alliance. Interpretation of patient anxiety may thus be associated with attempts to resolve resistance, and, further, that this work may involve an exploration of family dynamics as they are brought into the therapy situation. If this chain of inference is valid, it is possible that therapists reported that responses involving References to Familial Objects and Links were inversely related to session outcome as a way of indicating the strain associated with their effort to strengthen a weak alliance. Perhaps the relative failure to establish a strong alliance early in therapy "contaminates" subsequent interactions. Further research is required to explicate the meaning behind therapist's negative perceptions of this response behavior.

The use of the low versus high QOR distinction provided evidence suggestive of differential relationships between response to interpretation and session outcome for the two patient subgroups. Hesitant Acknowledgment was directly associated with therapist ratings of session outcome for high QOR patients. Thus, a quiet, thoughtful consideration of the interpretation was indicated by the therapists as being associated with productive therapy sessions for the high QOR patient. The suggestion is that "understanding" may be an important curative mechanism for high QOR patients in this form of therapy. It can

also be recalled that transference interpretations, particularly if accurate, were found to inhibit the occurrence of this response. This again suggests why frequent use of this therapist technique would be antipathetic to benefit for patients of a more mature quality of object relationships.

Patient Involvement and Emotionality were directly associated with therapist ratings of session outcome for low QOR patients. Rather than value the patient's private contemplation of the interpretation (as for high QOR patients), therapists saw productive sessions for the low QOR patients as involving a highly charged, immediate relationship involvement. These associations suggest that "relationship development" may be an important curative mechanism in the therapy for the low QOR patient. This implication for the therapy process accords with the poor interpersonal histories presented by the low QOR patient grouping.

RESPONSE COMPONENTS AND THERAPY OUTCOME

Orlinsky and Howard (1986) have offered the following comment regarding the relationships between the use of interpretation and therapy outcome identified after fifty years of process-outcome research:

> "Clearly, one cannot say that interpretation is a consistently effective, or even necessarily a safe, therapeutic intervention. Nor can one say that interpretation is generally an ineffective (or dangerous) procedure, since half (11 of 22) the research findings do indicate that patients benefit when interpretation is used. Given this situation, it seems reasonable to assume that other important factors act to neutralize or potentiate the impact of interpretation on patient outcome (p. 324)."

One of these factors is likely the nature of the patient's response to

interpretation. Therapist response modes have consistently accounted for only very small and nonsignificant proportions of outcome variance (Hill, 1990). Moreover, the impact of therapist interventions have been found to be more evident when associated with proximal rather than distal outcome measures (Hill et al., 1988). In effect, what may be more important to therapy outcome is the way in which the patient puts the therapist's intervention (interpretive or otherwise) to use.

Hesitant Acknowledgment and Patient Involvement were both found to be directly associated with the factor representing the independent assessor's evaluation of post-therapy outcome (External Observer Rating), for all patients. The two response components thus represent productive therapy process but differ on a dimension of active engagement, i.e. from low (Hesitant Acknowledgment) to high (Patient Involvement). Hesitant Acknowledgment may represent an important process dimension for patients working within the atmosphere of a healthy alliance, i.e. it may reflect the patient's willingness to consider the meaning of <u>any</u> intervention, however painful or discrepant, provided by the therapist. There were no studies known in the literature which provide convergent evidence for the existence of this dimension. The process research literature does provide numerous examples of the relationship between Patient Involvement and outcome. In their review, Orlinsky and Howard (1986) identified 15 of 25 findings that reflect a significant direct relationship between immediacy of the patient's affective expression (Patient Involvement) and outcome. More specifically, Gomes-Schwartz (1978) identified a direct relationship between Patient Involvement and outcome that cut across three forms of therapy (dynamic, experiential, and therapy provided by lay counselors). The Gomes-Schwartz measure was derived from <u>observer</u> ratings of the first

three therapy sessions and was based on combined scores for the Patient Participation and Hostility subscales of the Vanderbilt Psychotherapy Process Scale, thus providing convergent validity for the present findings. Similar results with a related sample are reported by O'Malley, Suh, and Strupp (1983). These authors also indicated that the relationship between their Patient Involvement dimension and treatment outcome increased as ratings from the first through third sessions were examined in succession. In their conclusion, O'Malley et al. (1983) argue that Patient Involvement may not necessarily arise from "the antecedent qualities of the patient" (p. 585) but is perhaps more related to "the personal qualities and technique of the therapist". In the regression analysis on the Involvement dimension from the present study, interpretation characteristics represented three of the five significant predictors, the interpretation context ("readiness") accounted uniquely for the largest proportion of criterion variance, while patient characteristics were represented by a single predictor accounting for the smallest proportion of variance among all predictors. In sum, the present study supports the view that Patient Involvement is predominantly associated with therapist technique and relationship variables and is a response component important to treatment outcome across patients.

Results of the present study regarding Patient Involvement were also supported by the findings of a review of therapist variables and treatment outcome conducted by Beutler, Crago, and Arizmendi (1986). The authors state:

> "Focal interpretations in the presence of emotional involvement and arousal appear to produce benefits to psychotherapy process and, to a lesser degree, to treatment outcome. However, the effectiveness of

these interventions may depend on the type used and the characteristics of the patients to whom they are directed (p. 294)." In the present study, patient "readiness" followed by accurate dynamic and/or transference interpretations were more likely to be followed by Patient Involvement. In turn, Involvement was directly associated with therapist ratings of session outcome for low QOR patients, post-therapy outcome (External Observer Rating) for all patients, and follow-up outcome (Individualized Objectives) for high QOR patients (see below).

Two response component-therapy outcome relationships provided specific information about the long-term changes made by low QOR patients in STI. In an independent replication of Gomes-Schwartz (1978), Beutler and Mitchell (1981) found that interpretations of early childhood experiences were negatively associated with therapy outcome. Outcome was represented by independent clinician and therapist global change ratings. A contrasting finding was identified in the present study. For the low QOR subgroup, responses involving the exploration of family relationships were directly associated with follow-up change on patient-rated target objectives. A focus on the historical basis for recurrent relationship problems apparently fostered the delayed treatment gain earned by these patients. The mechanism responsible for this relationship may be the patient's insight into the historical basis for recurrent relationship patterns as these are enacted during therapy. This hypothesis is congruent with the response component-session outcome relationships discussed previously which indicated that the therapist's task with the low QOR patient may be to facilitate a profound "relationship development". Interpretation of the inappropriate use of familial object relationship patterns may be useful for the therapy of low QOR patients.

Further study could clarify if these interpretations are more or less effective if a therapist link (T/P link; Malan, 1976) is also interpreted.

In further contrast to their high QOR counterparts, exploration of core aspects of dynamic conflict (References to Anxiety and Wish) in response to interpretation was found to be inversely associated with follow-up change (Individualized Objectives) for the low QOR patients. This finding again supports the therapist's view that "relationship development" was more important for the low QOR patient; it also suggests that therapist efforts to facilitate understanding based on a "psychoanalytic focus" may be counterproductive for the low QOR patient. The findings regarding response component-therapy outcome relationships provide substance for the view that the interpretive STI approach probably does not represent the most optimal treatment for low QOR patients (Piper et al., 1990).

A larger number of response component-therapy outcome relationships were identified for the high QOR subgroup. Hesitant Acknowledgment was directly associated with post-therapy symptom relief (General Symptomatology and Dysfunction) for this patient subgroup, again reflecting the importance of this response component to treatment gain (in-session and post-therapy) for the high QOR patient. In contrast, Denial was found to be inversely associated with post-therapy symptom relief for these patients. The Denial component was interpreted as an increased patient focus on the motivations of others; the response dimension was negatively related to immediate gain and this finding perhaps again suggests the importance of appropriate expectations for therapy. Responses indicative of Patient Confidence were directly associated with the independent assessment of post-therapy outcome

(External Observer Rating) for the high QOR patients. This relationship may reflect the experience of mastery associated with active contribution to the therapy process, i.e. the development of greater morale (Frank, 1974). Orlinsky and Howard (1986) identified 13 of 20 findings supportive of a direct relationship between therapy outcome and patient collaboration, defined as the patient's assumption of an active role in resolving their problems. Patient Confidence was a response component similar to the Orlinsky and Howard definition; this relationship thereby accords well with previous process research findings. Further, Sachs (1983) reports that patient qualities characteristic of negative attitudes (Denial) and passivity (Patient Confidence inverted) were inversely related to outcome in dynamic therapy. The relationships reported by Sachs (1983) were based on process ratings applied to the third therapy session. The sample in Sachs (1983) was drawn from the same college population employed by Gomes-Schwartz (1978) and presented with complaints of depressed mood, anxiety, and interpersonal problems--and may thus have been similar to the higher functioning members of the STI outpatient sample.

Patient Involvement was directly associated with follow-up improvement on target objective severity for the high QOR patients. Encounters with interpersonal difficulties following therapy may require that the high QOR patient recall the understanding gained by directly expressing feelings to the therapist and use this as a format for problem resolution. Dynamic Work also proved to be directly associated with follow-up change for the high QOR patient. Again, reference to learned skills for dynamic understanding apparently proved beneficial to these patients as time progressed following treatment termination. With regard to the response

component-treatment outcome relationships identified for high QOR patients, Schauble and Pierce (1974) report that patient "owning of feeling" (Denial inverted), commitment to change (Patient Confidence), and patient self-exploration (Patient Involvement) were significantly associated with successful treatment outcome. The sample employed by Schauble and Pierce (1974) included "neurotic outpatients" and was again likely similar to the high QOR subgroup from the STI project.

Research reporting that therapist response modes (interventions) account for only minimal proportions of outcome variance was referred to earlier. The position in the present study is that it is the patient's response to specific aspects of particular interventions which is crucial to the identification of outcome relationships. Significant relationships between response component scores and indices of therapy outcome not only suggest this may be the case but also provided insight into possible differential therapeutic change mechanisms for patients of contrasting QOR profiles receiving the same approach to therapy. Moreover, additional analyses which partialled out the association between patient characteristics and both response components and outcome resulted in a similar pattern of significant correlations between the process variables and measures of treatment gain. These partial correlations suggest that variation in outcome can be attributable to therapy process variables independently of patient characteristics (Strupp, 1980). In other words, patterns of patient response can themselves uniquely account for substantial variance in treatment outcome. If this perspective is accepted, therapist interventions (response modes) can be seen to account for outcome only indirectly and then via the mediation of the patient's response.

AN EXPLANATORY FRAMEWORK FOR THE FINDINGS OF THE PRESENT STUDY

Based on their review of psychotherapy process research, Orlinsky and Howard (1986; p. 366-370) outlined a "generic model of psychotherapy" which provides an explanatory framework for the findings of the present study. The model represents both the process and functional context of psychotherapy. "Context" includes the participants (patient, therapist, but also referral agents, supervisors, etc.) as well as "social structural and cultural aspects of the setting and of the community in which therapy occurs" (p. 366). The depiction of the therapy process in the model, of concern here, comprises four interdependent elements: the therapeutic bond (or alliance), therapeutic interventions, patient self-relatedness, and therapeutic realizations. Personal characteristics and expectations of the patient and therapist are depicted as having a direct bearing on the development of the therapeutic bond. Patient self-relatedness is defined as the patient's ability to absorb the impact generated explicitly by therapeutic interventions, and implicitly by experience of the alliance. Therapeutic realizations are defined as the effects of therapeutic interventions and of the therapeutic bond within the therapy session; realizations include "insight, resolution of conflicts, or learning of new cognitive and interpersonal skills" (p. 367). The impact of these four elements in interaction determines the outcome of each session, or in the vernacular of the model, "micro-outcomes". The gradual accumulation of positive micro-outcomes is held to result in the consolidation of "macro-outcomes", i.e. significant changes in personal functioning usually tapped at the conclusion of treatment.

A particular form of therapeutic intervention was examined in the present study. Aspects of dynamic interpretation that were found to be

salient in the regression analyses included the content focus of interpretations (wish or anxiety references, references to transference), the complexity of the interpretation (single vs. multiple references to dynamic components), and the degree of correspondence evident between the interpretation and dynamic components and object relationships identified in the initial formulation. The predictor variable reflecting "readiness" to work in response to interpretation, derived from the discriminant function analysis of precondition process measures, appears to be conceptually similar to "patient self-relatedness". Dynamic Work, Hesitant Acknowledgment, and Patient Involvement are the dimensions of patient response that tend to fulfill the definition of "therapeutic realizations". The remaining response dimensions are hypothesized to be associated with development of the therapeutic alliance, or facilitation of patient self-relatedness.

The authors state:

> "Patient self-relatedness presumably reflects the degree to which patients can accommodate or absorb information that is not readily assimilable to habitual schemata. When patients are open and nondefensive, therapeutic interventions such as interpretation . . can be absorbed that may be constructively inconsistent with, and thereby mutative of, their core working assumptions concerning self and others. Patient self-relatedness should be consistently associated with outcome, as observed, because it is a major precondition for the production of therapeutic realizations (p. 368)."

Patient "readiness" was identified as a significant predictor for the response dimensions of Dynamic Work and Patient Involvement; these response dimensions were also shown to be directly related to outcome at

post-therapy for all patients (Involvement) and follow-up for high QOR patients (Involvement and Dynamic Work). These findings confirm the hypothesis offered above. Examination of the correlations between patient "readiness" scores aggregated over episodes and indices of therapy outcome was also supportive of the above assumption: "readiness" was directly associated with the External Observer Rating at post-treatment [$r(60) = -.30$, $p < .05$] and with Individualized Objectives at five-month follow-up [$r(60) = -.28$, $p < .07$].

In their review, Orlinsky and Howard (1986) identified 14 of 18 findings which showed a significant direct relationship between process events indicative of therapeutic realizations and treatment outcome. The authors suggest further that the consistent positive relationship between macro-outcomes and therapeutic realizations suggests that realizations (i.e. session "events") are involved in the production of micro-outcomes (i.e. valuable sessions). The response components identified in the present study as similar to realizations were directly associated with either session and post-therapy (Hesitant Acknowledgment, Patient Involvement) or follow-up (Dynamic Work, Patient Involvement) outcome. More specifically, the dimensions associated with the curative mechanism of "understanding" (Dynamic Work, Hesitant Acknowledgment) were important for high QOR patients across all outcome assessments [session and post-therapy (Hesitant Acknowledgment), and follow-up (Dynamic Work, Patient Involvement)]. The component deemed representative of "relationship development" (Involvement) was important for low QOR patients at the level of the session or micro-outcome, was important for all patients at post-therapy, and was associated with delayed improvement for high QOR patients at follow-up. It can be assumed that a single

response of one type (e.g. Involvement) may be more powerful than a number of responses of other types. Moving beyond data representative of the patient's "typical" response to interpretation, it is plausible that measurement of a sequence of these "working" responses (i.e. realizations) would be more strongly associated with outcome measured at the level of the overall treatment. The development of statistical techniques applicable to sequential analysis (e.g. Russell & Trull, 1986) would be applicable to subsequent explorations of this hypothesis.

A strong therapeutic bond (alliance) "should enhance the patient's openness to therapeutic interventions by providing a safe, supportive but stimulating environment" (Orlinsky & Howard, 1986, p. 369). The predictor variable defined by averaged patient ratings of the therapeutic alliance was shown to be inversely associated with responses characterized by Demands on Therapist. A strong alliance would therefore act to preclude oppositional responses to interpretation in favor of more productive response process. Acting to inhibit defensive responses to interpretation, the alliance can therefore be seen as a "permissive factor" for more productive therapy process. The early development of a healthy alliance is likely a necessary requisite for effective therapy.

It can be argued that a number of the response dimensions are associated with development and maintenance of the therapeutic bond (alliance). Responses characterized by References to Anxiety and Wish were inversely associated with follow-up outcome for the low QOR patient. As the response is oriented more towards "understanding" than "relationship development", References to Anxiety and Wish may be counterproductive to alliance formation with and treatment gain for the low QOR patient. References to Familial Objects and Links was shown to be

associated with interpretations of patient anxiety, the latter found by Foreman and Marmar (1985) to be associated with improvements in the therapeutic alliance. The response component was directly associated with follow-up improvement for the low QOR patient, suggesting that "negotiation" in the relationship prompted by this content focus was an important element in the therapies for these patients. The inverse relationship between the occurrence of this response and therapist session outcome ratings was held to reflect the therapist's experience of the effort required in strengthening or maintaining the alliance and providing a "relationship" therapy. Patient Confidence was earlier described as similar to "patient collaboration" (Orlinsky & Howard, 1986) and was found to be directly related to post-therapy outcome for the high QOR patient. The willingness to develop a shared understanding with the therapist is likely a precursor to alliance formation. In contrast, patient Denial would work against the emergence of a joint perspective and was found to be inversely associated with post-therapy improvement for the high QOR patients.

In speculative fashion, arguments can also be advanced to suggest that the remaining response dimensions are necessary to the development of patient self-relatedness. These impressions of course require additional empirical support. Schauble and Pierce (1974) found that outcome was significantly and positively related to the way patients viewed and discussed their problems. Patients who manifested a strong and increasing sense of responsibility for their own feelings and actions in problem situations received more benefit than those who viewed their problems "externally", as something that simply happened to them. Internal-External Focus was unrelated to either session or therapy outcome in the

present study but may represent a necessary precursor to the development of greater patient openness. In other words, an increased internal focus in response to interpretation by itself may not be predictive of session or therapy outcome, but may act as a foundation for other forms of response that do exhibit such relationships. Nichols (1984), Birenbaum, Nichols and Schwartz (1976), and Werman, Agle, McDaniel, and Schoof (1976) provide evidence for a direct relationship between emotional discharge and treatment outcome. No evidence was found for a relationship between Emotionality and treatment outcome but there was evidence for a direct relationship with therapist-rated session outcome. Emotionality may thus be regarded as an important substrate for further important work by the patient. As noted, oppositional responses represented by Demands on Therapist may preclude further productive process (Thompson & Hill, 1988) but, if not extreme, may also help identify transference potentials useful in orienting further patient exploration. Anxious Speech Production would be likely to detract from patient comfort with personal exploration and thus inhibit the development of optimal self-relatedness. Finally, Relational Work may promote the patient's awareness of recurrent relationship patterns and stimulate curiosity about possible explanations, again encouraging greater openness to further interpretations.

The "generic model" (Orlinsky & Howard, 1986) serves to place many of the findings of the current study in context. For certain response dimensions, there was a relative absence of predictor variable relationships and associations with session or therapy outcome. The model nonetheless suggests possible conceptual linkages for these response dimensions. Further research is certainly required to substantiate the identification of variables from the present study as representative of

"realizations" and precursors to the alliance and patient "relatedness", and to provide empirical support for the suppositions advanced for the remaining response components.

LIMITATIONS OF THE PRESENT STUDY

Interpretation of the findings of the present study must be qualified in the face of several conceptual and methodological limitations. The definitions of what constituted an "interpretation" and "interpretation episode" had the advantage of providing for improved observational rigor at the expense of constraining the relevance of those observations. For example, the TIRS definition of interpretive interventions is closely aligned with the psychodynamic approach, and can be applied with strong reliability. However, the generally accepted definition of interpretation, i.e. an intervention designed to make conscious some aspect of the patient's functioning that has remained unconscious, is constrained by the TIRS criteria. Other interventions having a possible interpretive function are thus excluded. In similar fashion, the specificity of the TIRS definition of interpretation means that the results of the present investigation are not readily contrasted with previous studies utilizing a more general definition of this therapist intervention. Beyond the specificity issue, the psychodynamic rationale of the TIRS also restricts generalizations of the present findings to other forms of dynamically-oriented psychotherapy.

Rigorous criteria governed the selection of interpretation episodes from the stream of therapy session material; these criteria also proved to be highly reliable. This demarcation nonetheless constrained the perspective taken on the interpretive process to the immediate context, i.e. a two-minute "event horizon" before and after the target

interpretation. Generalizations possible from the investigation are consequently constrained to similar circumscribed "slices" of the patient-therapist interaction. For example, therapist interventions which occur earlier and are oriented to preparing the patient for an interpretation, or patient response behaviors that reflect more delayed impacts of the intervention, were excluded from examination by this delimiting of the research focus.

A large battery of patient process measures was employed in the present study. The expectation that raters attain proficiency with many complicated systems likely compromised their development of skill with any one system. In like fashion, a sizable sample of interpretation episodes was accumulated for the process analysis. Feasibility constraints required that the raters worked independently; in this regard, the size of the sample precluded the stronger method of consensus or averaged ratings by sets of judges. The emphases on extensive coverage of constructs and a considerable number of observations resulted in definite problems with the reliability of process ratings and likely had adverse effects on the quality of the episode data. Given that this activity represented the major data collection aspect of the study, hindsight suggests that the use of pairs or teams of raters who would be specialists with individual process systems may have provided for greater efficiency. Effort may have been more effectively expended in greater training of process raters than collating the large episode sample, an important lesson for future research. Concerns with interrater reliability were somewhat balanced by the strong external validity afforded by the study's applied setting.

Lay raters were chosen to avoid the particular biases associated with theoretical adherence or extensive clinical experience. A number of the

present findings were contrary to a bias in favor of interpretation having only positive effects (e.g. Demands on Therapist and Denial as dimensions of patient response), suggesting that such attitudinal influences were not operative in the rating task. Efforts were also made to control the presentation of material to raters (e.g. counterbalancing of raters with rating systems, blindness considerations) in order to reduce the influence of response sets or halo effects. However, given that the episode data consisted entirely of subjective ratings, possible distortions due to influences such as these cannot be ruled out.

A very broad net was cast to develop a battery of potential predictors of the patient's response to interpretation and a great deal of work was done to reduce this large number of variables to more representative linear combinations. This activity had the intent of supporting a hierarchical test of the influence of different classes of predictors on the patient's use of therapist interpretive contributions. The manner in which the data analysis evolved meant that a large proportion of this interesting information remained unexamined. The predictor variables eventually selected for the regression analyses were chosen according to carefully specified criteria. It is not certain, however, that other variables, perhaps more relevant to the phenomenon under consideration, were not overlooked.

The issue of nonindependence took two forms in the present study. One aspect of this issue which received major emphasis in the analysis concerned the assumption of nonindependence of observations, a central requirement in the application of any inferential statistical technique. Methods employed to measure the degree of dependence in the data (i.e. intraclass correlation and the autocorrelation transformation) indicated

that this problem was slight and unlikely to have adverse effects on the estimation of effects or statistical power. Aggregation of the data for regression and correlation analyses also diminished the strength of this concern.

The more problematic aspect of the nonindependence issue concerned the sheer number of statistical tests conducted and the resultant inflationary effect on Type I error rates. The exploratory nature of the investigation has been reiterated several times; in this regard, some sacrifice of statistical validity in favor of statistical power seemed justified. Methods were employed in each analysis to strike the appropriate balance between error protection and investigative interest. In the MANOVA on the therapist behavior variables, a "protected F test" procedure was employed. For the discriminant function analysis of precondition measures and the principal components analysis of response measures, redundant variables were deleted prior to the analysis being carried out. Variables accepted for definition of the discriminant function were required to have coefficients three times the size of a value significant at the 99% level of confidence. Both the Kaiser criterion and scree test methods were utilized to determine the number of components retained in the analysis of patient response dimensions. As noted previously, the episode dataset was aggregated for the regression and correlation analyses; this had the benefit of providing much more reliable score estimates for the measures involved and consequently reduced the likelihood of chance relationships. Finally, criteria were specified for acceptance of meaningful correlational patterns in the assessment of response component-outcome relationships.

As with the limitations discussed previously, the choices made in the

data analysis resulted in trade-offs between statistical rigor (low Type I error) and conceptual relevance (power). The relatively liberal perspective taken in the investigation is subject to criticism according to methodological desiderata and statistical convention. The findings do serve to outline some of the pieces of the puzzle represented by the technique of interpretation and suggest how some of the pieces may fit together. The limitations of the study require that interpretations of the findings be subject to qualification. Most certainly, meeting the definite need for replication is the only effective means of substantiating the choices made in the investigation and validating the findings the study has furnished.

CLINICAL IMPLICATIONS OF THE CURRENT FINDINGS

The present study had a focus on interpretation episodes from STI therapy, and those relationships involving dimensions of patient response process. Inferences about the activities of patient and therapist which precede and are supportive of "working" episodes cannot be made without additional empirical study. Similarly, a broader focus in subsequent research can provide information on the impact of interpretation beyond the immediate patient response. Clinical recommendations are therefore advanced only for the timing and technique of interpretive interventions, and the evaluation of the immediate impact of such interventions, within short-term psychodynamic psychotherapy.

Early Identification of Potential Patient "Work" Behavior.

"Working" episodes were, in general, characterized by less therapist activity. An interpretation is likely best delivered when the patient is struggling to articulate the meaning associated with unresolved issues or emergent affect. The therapist can be cued that the patient is engaged in

productive cognitive-affective processing by attending to the characteristics of patient "readiness". The greater the degree of self-focus evident across the extralinguistic, intersubjective, and content "channels" of the patient's communication, the more the therapist should "recede" until the interpretation appears timely, i.e. when the patient's processing begins to falter or reaches an impasse. When the patient manifests increased "readiness", the therapist's task is to allow it to develop without introducing a new topic focus, i.e. by refraining from "unnecessary" interventions. Interpretation can be employed to provide summarization, the needed linkage between elements of the patient's material, or extension of the patient's focus, at the moment when culmination of the immediate processing is required by the patient.

Evaluating the Impact of Interpretations.

Evaluating the impact of an interpretation requires that the therapist be open to a multidimensional perspective on the patient's response. Certain characteristics of the patient's response are indicative of productive process, a "hit" or "on-target" interpretation (i.e. an increased internal focus, Hesitant Acknowledgment, Patient Involvement, Patient Confidence). Other dimensions may reflect a "miss" or an interpretation the patient finds threatening (i.e. Denial, Anxious Speech Production, an increased external focus, or extreme opposition). The patient's use of content is indicative of the degree of "psychoanalytic focus" possible in subsequent dialogue during and following the episode (i.e. Dynamic Work, References to Anxiety and Wish, Relational Work). The remaining characteristics of the patient's response (i.e. Demands on Therapist, Emotionality, References to Familial Objects and Links) likely have a curvilinear relationship to productive process. The occurrence of

these forms of patient response may require adjustment of the "intensity" of therapist activity, i.e. to push for greater involvement or withdraw and allow for a decrease in upset, active resistance, or excessive concentration on certain content areas.

Hesitant Acknowledgment appears to represent a positive response to interpretation, i.e. the patient's private attempt to employ the interpretation in the development of greater self-understanding. The meaning of this response dimension is equivocal but certainly deserving of further empirical study and clinical attention. Within a healthy alliance, responses marked by Hesitant Acknowledgment may reflect the patient's evaluation of inaccurate interpretations (e.g. transference interpretations of low correspondence); the patient may then perhaps go on to provide material which corrects for errors or omissions in the therapist's construction (Casement, 1991). Alternatively, this response pattern may have value when the patient will benefit at that moment from insight of a cognitive nature. However, if emotional understanding based on the immediate experience of chronic interpersonal patterns being enacted in the therapy relationship is the goal of the interpretation, the therapist should press for greater patient engagement--through the use of a transference focus.

The Use of Transference.

To encourage an active, interactional focus on the here-and-now relationship, the therapist should endeavor to address the transference in terms which accurately reflect known interpersonal conflicts in the patient's history. By highlighting the presence of these conflicts in the immediate relationship and precisely identifying parallels in earlier relationships, the therapist can encourage greater patient engagement

(i.e. increased Patient Confidence, Patient Involvement, and Demands on Therapist; decreased Hesitant Acknowledgment). As noted above, the timing of a push for such engagement can be crucial, and an overuse of the transference technique—perhaps even if accurate—can be detrimental. The recommendations of Frances and Perry (1983) regarding the timing of transference interpretations are important in this regard.

The Focus on Components of the Patient's Dynamic Conflict.

Accuracy is also important for interpretations which aim to represent the dynamic aspects of the patient's underlying conflict. Accuracy of references to dynamic components is dependent on the development of a valid formulation of the patient's conflict which can have heuristic value to the therapist's understanding of the ongoing interaction. The more the interpretation accurately represents the patient's hypothesized conflictual components, the greater the likelihood the patient's exploration of personal issues will become progressively more meaningful, facilitating the establishment of an intimate and productive relationship with the therapist.

Interpretations of the patient's wish component(s) can act to increase the patient's internal focus and confidence in the therapeutic process. Such interpretations may be useful in moving to a deeper level of issue exploration and/or when strengthening the alliance is called for.

Interpretations of the patient's fear component(s) appear useful during exploration of details of the family history which perhaps figure in chronically maladaptive interpersonal patterns. Insight into how these fears may be inappropriate in the therapy relationship can also serve to improve the working alliance.

The Complexity of Interpretation.

An interpretation should be provided in terms simple enough to allow it to be accessible for the patient. Recommendations in the clinical literature which suggest using the patient's language for interpretation have a similar intent. Overly complex interpretations—those which provide representations of more than single aspects of the patient's conflict—were shown to have multiple deleterious effects (i.e. decreased Patient Involvement, Patient Confidence, Demands on Therapist, and Anxious Speech Production). The sum total of these effects is to deprive the patient of a sense of collaboration with the therapist and mastery of the tasks of therapy. In effect, simple interpretations allow the patient to immerse him/herself in the work of therapy and consequently may also contribute to development of the therapy alliance.

The Prognostic Value of Patient Characteristics.

Certain patient characteristics which emerged as significant predictors of response process can have value in the selection of patients for brief psychodynamic therapy. Patients reporting a high degree of distress with experienced symptoms evidenced a greater capacity to engage in fundamental work with interpretations (i.e. greater Internal Focus, Hesitant Acknowledgment, and References to Anxiety and Wish). Distress associated with symptoms is not to be confused with degree of psychopathology but represents an index of the patient's motivation to correct problems in functioning. A number of positive patient capacities were embodied in the component based on therapist ratings of the "good therapy patient". In turn, this variable was directly associated with response dimensions having a bearing on session and therapy outcome (i.e. Hesitant Acknowledgment and Patient Involvement). The initial assessment

of the patient's suitability for STI therapy should therefore pay particular attention to the level of psychological mindedness (McCallum & Piper, 1990b) and motivation for therapeutic involvement. Additionally, use of the initial assessment as a therapy "trial run" is recommended; judgements of the patient's ability to interact with the therapist, respond well to interpretation, and to be an individual with whom the therapist feels comfortable were all constituents of the "good therapy patient" variable. In a related fashion, attention to the patient's expectation that he/she will be active in talking about feelings during the therapy session would be useful. This expectation was found to be predictive of the appropriate attitude towards the therapeutic enterprise (i.e. Patient Confidence) and responses involving content useful to the psychodynamic approach (i.e. References to Anxiety and Wish, and References to Familial Objects and Links). Preparation sessions might be considered in order to inculcate this patient "set" and guard against the patient's entry into therapy with unrealistic expectations.

The determination of the patient's quality of object relationships (Azim et al., 1991) can be useful in predicting the necessary therapeutic approach (see below). Patients with higher QOR appear more open to working collaboratively with the therapist in developing a cognitive-emotional appreciation of maladaptive patterns. In contrast, patients at lower levels on the dimension appear to require a more supportive, "holding" therapeutic environment oriented towards the negotiation of a healthy, mutually respectful relationship.

Specific Recommendations for Patients of Differing QOR.

Therapy with the high QOR patient is more likely to occur within the context of a healthy alliance, given the interpersonal history and

capacity of these patients to establish reciprocal relationships. As a consequence, the high QOR patient may be more open to the receipt of confrontation or "painful" interpretation. Evidence of Denial in the patient's response can and should therefore be confronted; this would serve to protect against lack of symptomatic improvement or even deterioration at post-therapy.

Within a healthy therapeutic alliance with the high QOR patient, the therapist may be in a more "forgiving" situation with regard to interpretive error. The less accurate a transference interpretation, the more likely the patient would engage in Hesitant Acknowledgment. In effect, the patient may use this form of response to covertly evaluate the "fit" of the interpretation, and then subsequently provide material which adjusts for mistakes or oversights in the therapist's construction. This hypothesis emphasizes the nature of patient-therapist collaboration and is supported by the direct relationship between Hesitant Acknowledgment and post-therapy symptom change for the high QOR patient. Conversely, the more accurate the therapist's transference interpretation, the greater the likelihood of a response reflecting increased Patient Involvement. This response dimension was in turn directly associated with follow-up change on target objectives for these patients.

While the therapeutic approach with the high QOR patient may allow for greater interpretive latitude, accuracy of transference interpretation remains important with these patients. An accurate transference interpretation may be especially useful when the alliance is faltering (after Frances & Perry, 1983), given the direct association with increased Patient Confidence. In turn, Confidence was shown to be important to the post-therapy outcome for these patients.

The importance of a transference focus to patient response dimensions associated with the therapy outcome of high QOR patients does not imply that the therapist should rely exclusively on this technique. The response dimension of Dynamic Work was also important to follow-up change for these patients. This form of response, however, tended to be inhibited by a higher frequency use of transference interpretations. Consequently, therapists should be judicious in their use of the technique with high QOR patients, attend to the early development and maintenance of a healthy alliance, and make use of collaborative work with the patient to refine the accuracy of their understanding of transference patterns.

Therapists regarded Patient Involvement and Emotionality as two response dimensions important to session outcome for the low QOR patient. According to therapist ratings, a focus on development of the affective relationship with the low QOR patient was associated with valuable in-therapy change. Accurate transference interpretations, insofar as they act to increase patient disclosure and Experiencing, should therefore be addressed to immediate difficulties encountered in the negotiation of a give-and-take relationship. In this light, the identification of parallels between the immediate relationship and historical familial relations appeared important to follow-up change for the low QOR patient. This relationship would imply that interpretation of needs unmet in early object relationships, with some gratification of same in the therapy situation, may be facilitative of long-term change for the low QOR patient. Finally, the response dimension representing References to Anxiety and Wish was found to be inversely associated with follow-up outcome for the low QOR patient grouping. An insight-oriented focus on the core components of the patient's dynamic conflict may therefore be

counterproductive for these patients, certainly secondary in impact to the therapeutic emphasis on negotiating a healthy relationship and correcting long-standing maladaptive interpersonal patterns.

THEMES FOR FUTURE PSYCHOTHERAPY PROCESS RESEARCH

As a final note, themes identified in the present study which have implications for future process investigations will be reviewed. The recommendations move from specific findings to more general conceptual issues.

1. Analyses of therapist behavior in "nonwork" versus "work" episodes suggest the latter result from a patient-driven process. This conclusion requires a shift in the common perspective on therapy process, i.e. the patient's behavior is as much a determinant of therapist interventions as the reverse. While the present study adhered to the more traditional view, future process research should attend to the "sequential dependencies" (Russell & Trull, 1986) in process data.
2. The discriminant function analysis suggests that "readiness" may require more than simple verbal expressions of openness by the patient. All channels of patient communication need to be assessed for clear determination of the patient state appropriate for interpretation. This finding also implies that other channels (e.g. nonverbal) may also be important to the accurate timing of therapist interventions.
3. Assessing the impact of interpretation requires that researchers and clinicians adopt a multidimensional perspective on patient response, just as assessment of outcome had to move to multiple perspectives and measures to gain an understanding of the

specific effects of therapy. It is also recommended that future process research move from an overly broad consideration of the effect of different therapist response modes to a more focused examination on the impact of specific aspects of particular interventions. In this vein, the puzzle represented by the Hesitant Acknowledgment response dimension warrants further empirical attention.

4. The developing concept of interpretation accuracy shows promise for uncovering effective mechanisms of psychodynamic psychotherapy. "Correspondence" was shown to be an important aspect of the interpretive focus both for components of dynamic conflict and the transference. These relationships, in contrast to a more inferential concept like "compatibility" (Silberschatz et al., 1986), were held to result from the weight given the therapist's synthesis of the immediate transaction with the patient. Assessing the match between this synthesis and the therapist's original "working model" of the patient's problem remains close to the concrete phenomena of therapy. It is recommended that subsequent work on the "correspondence" concept attend to the validity of therapist formulations and how this interacts with the concrete experience of the participants over time, i.e. with the alliance.

5. The therapeutic alliance can be considered a "permissive factor" for varieties of therapeutic work. It would be of interest to determine what patterns of process become more likely as the alliance becomes established and which of these patterns is predictive of outcome. This determination would suggest an

estimate of the "minimal level" of the alliance required for effective therapy. A related question concerns how variations in the alliance are predicted by and predictive of variations in patient process (e.g. Colson, Horwitz, Allen, Frieswyk, Gabbard, Newsom, & Coyne, 1988).

6. Patient characteristics found to be associated with interpretation response process fall into two general categories. The first includes dimensions that represent relatively fixed qualities (e.g. QOR, aspects of the "good therapy patient"). These dimensions represent suitability criteria for engagement in the therapy process. The second category concerns patient expectations for the therapy experience. Expectations (patient "states") are confirmed or disconfirmed as a function of the patient's appraisal of the therapy experience. This appraisal will be accurate insofar as a pretherapy preparation adequately outlines the roles and tasks of each participant and helps the patient identify realistic goals for treatment. As a unique patient characteristic, acuity of symptom distress refers to the patient's felt need for therapeutic help and is not meant to suggest a greater degree of psychopathology. Acuity of symptom distress represents a mutable patient characteristic, indicative of motivation prior to therapy and a benchmark for therapy progress during and after treatment. Future research should endeavor to identify relationships between each of these three subclasses of patient characteristics and specific patterns of patient process.

7. Relationships between response components and indices of session

or therapy outcome highlighted response dimensions important across all patients, but in particular pointed to possible differential change mechanisms for patients varying on a particular aptitude (QOR). The analyses substantiated the view from a previous controlled trial of STI (Piper et al., 1990) that patients of low QOR may not be best served by this approach. The curative mechanism for high QOR patients appeared to be "understanding" or insight (presupposing the uncomplicated development of a healthy alliance). Relationships between response components and therapist session outcome ratings suggest that a curative mechanism for the low QOR patient may be the emphasis put on "relationship development". This would suggest further that establishment of the alliance is the work of therapy for patients with a poor history of interpersonal relations. An important characteristic of this focus on "relationship development" with the low QOR patient was suggested by the relationship between the References to Familial Objects and Links response component and follow-up outcome: difficulties with the therapist can be addressed in terms of needs unmet in both the family of origin and the immediate therapy relationship. In a more supportive approach to therapy with these patients, some gratification of these needs may be an important therapeutic element. In sum, a number of the response component-outcome relationships suggested a differential response to the STI approach as a function of patient QOR. These findings provided further support for the conclusion of the controlled trial that the high QOR patient may be especially suited to an

insight-oriented therapy approach. In contrast, the data also provides further impetus for considering whether the low QOR patient may be more appropriate for a supportive, problem-solvingapproach (e.g. Rockland, 1989). Future research on the process of psychotherapy should insure that attention continues to be directed to patient aptitudes which are clinically salient and possibly associated with differential therapeutic change mechanisms.

8. The present study demonstrated the importance of assessing all facets of the therapeutic enterprise (characteristics of the patient, therapy relationship, context, intervention, and outcome) in order to identify possible patterns of relationships among these classes of variables.

9. Finally, the present study also demonstrated that examination of an aspect of the therapy process which has direct clinical relevance, i.e. the use of interpretation in dynamic therapy, can have practical benefits for the application of clinical technique.

Table 1: Number of Episodes in Sample by "Work", Time in Therapy, QOR, and Treatment Condition

	Time in Therapy								
	Early		Middle		Late		TOTAL		
Patient Group	W	NW	W	NW	W	NW	W	NW	TOTAL
High QOR									
Immediate	32	31	72	50	56	32	160	113	273
Delay	52	34	75	34	48	37	175	105	280
SUBTOTAL	84	65	147	84	104	69	335	218	553
Low QOR									
Immediate	41	30	61	34	49	33	151	97	248
Delay	50	24	62	45	69	30	181	99	280
SUBTOTAL	91	54	123	79	118	63	332	196	528
GRAND TOTAL	175	119	270	163	222	132	667	414	1081

Legend: W = "Work" or "Successful" Episodes; NW = "Nonwork" or "Unsuccessful" Episodes. QOR = Quality of Object Relationships designation. Immediate = Immediate therapy condition; Delay = Wait-list control condition.

Table 2: Typology of Patient Process Rating Measures

Language Rating Category	Coding Strategy: Classical	Coding Strategy: Pragmatic
Content	PCRS: Dynamic Components and Objects	Experiencing Scale
Intersubjective	—	PCRS: Verbal Response Modes (Intention)
Extralinguistic	Speech Disturbance Ratio Speech Rate Silence Quotient Proportion Utterance Mean Latency Number and duration of patient communications	Vocal Quality categories

Note: The typology of language analysis systems is based on Russell and Stiles (1979). PCRS = Patient Content Reference System.

Table 3: Mean Interrater Reliability/Agreement Coefficients

By Rating Measure

Rating Measure	Reliability	Agreement
Speech Disturbance Ratio (Intraclass r)		
Corrections	.26 (.07 to .41)	
Fragments	.45 (.01 to .75)	
Repetitions	.70 (.57 to .79)	
Distortions	.05 (-.02 to .09)	
Intrusions	.63 (.47 to .78)	
Total SDR	.68 (.54 to .76)	
Vocal Quality categories (Pearson r)		
Segment nominal rating (Cohen's k)	.30 (-.13 to .85)	.66 (.27 to .95)
Number of "thought units"	.79 (.71 to .84)	
Proportion of Focused	.42 (-.23 to .81)	
Proportion of Externalized	.56 (.19 to .90)	
Proportion of Limited	.52 (-.11 to .88)	
Proportion of Emotional	.70 (-.08 to 1.00)	
Experiencing Scale (Intraclass r)		
Modal segment rating	.53 (.42 to .58)	.62 (.58 to .64)
Peak segment rating	.50 (.46 to .56)	.61 (.50 to .66)
Patient Content Reference System - Verbal Response Modes (Intraclass r)		
Number of "thought units"	.83 (.74 to .89)	
Disclosure	.73 (.69 to .81)	
Question	.46 (.32 to .57)	
Inform	.63 (.45 to .80)	
Acknowledge	.55 (.29 to .78)	
Confirm	—	
Reflect	—	
Advise	—	
Assume	.63 (.44 to .78)	
Patient Content Reference System - Dynamic/Object References (Pearson r)		
Dynamic Components:		
Wish	.60 (.48 to .71)	
Anxiety	.63 (.53 to .71)	
Defense	.28 (.13 to .52)	
Dynamic Expression	.49 (.35 to .62)	
All components	.59 (.53 to .66)	
Segment "work" rating	.55 (.41 to .71)	

(continued)

Table 3 (continued)

Rating Measure	Reliability	Agreement
Patient Content Reference System - Dynamic/Object References (cont'd.)		
Objects:		
Father	.72 (.61 to .82)	
Mother	.83 (.56 to 1.00)	
Parents	.85 (.62 to .99)	
Siblings	.99 —	
Family of origin	.70 (.31 to .90)	
Therapist	.76 (.67 to .83)	
Object (e.g. spouse)	.77 (.68 to .89)	
Undifferentiated object (e.g. doctors)	.66 (.39 to .80)	
Across all object types	.77 (.63 to .86)	
Interpretation Correspondence Ratings (Pearson r)		
Dynamic Components	.58 (.49 to .65)	
Objects	.62 (.26 to .83)	

Note: The coefficients employed to assess interrater reliability for each rating system are indicated in brackets following the subtitle for the measure. Pearson correlation coefficients reported are the grand means across all rater pairs and reliability assessments; the ranges reported are the minimum and maximum values attained across all pairs and assessments. Intraclass correlation coefficients indicate the average reliability of the individual rater adjusted for chance agreement. The coefficients reported are the means across reliability assessments; ranges refer to the minimum and maximum values attained across assessments. Coefficients for interrater agreement (VQ nominal and EXP ratings) refer to percent perfect agreement adjusted for chance (Tinsley & Weiss, 1975, p. 366-368). In each instance, interrater agreement is significantly greater than expected by chance ($p < .001$).

Coefficients are not reported for three VRM categories (Confirm, Reflect, and Advise) as base rates of occurrence for these variables were below 1% in the reliability samples. Patient references to siblings were recorded in only one of the four PCRS reliability samples; no range for the reliability coefficient is thus reported.

Table 4: Discriminant Analysis of Precondition Process Measures Related to "Nonwork-Work"

Discriminating Variable	r Between Variable and Function	Wilks's Lambda	F(1, 1078)
Externalized Vocal Quality	-.51	.990	10.85***
Disclose (-) versus Inform (+) VRM	-.48	.991	9.72**
Modal Experiencing	.45	.992	8.47**
Focused Vocal Quality	.42	.993	7.29**
Reflect (-) versus Question (+) VRM	-.34	.995	4.74*
Proportion Utterance	.33	.996	4.47*
Speech Rate	-.27	.997	3.02[a]
References to "Other" Objects	-.26	.997	2.85[a]

Note. In interpreting the direction of the correlations between the discriminating variables and the function as a whole, note should be made that "nonwork" was coded as 0 and "work" as 1. Each of the VRM component scores defined a bipolar dimension, represented at each pole as indicated in the table. For the function as a whole, Wilks's lambda = .96, distributed as a X^2 statistic with df = 21 and equal to 40.85, $p < .001$. Group centroids were -.25 and .16 for "nonwork" and "work" episodes, respectively.

[a] $.05 < p < .10$.

*$p < .05$; **$p < .01$; ***$p < .001$.

Table 5: Principal Components Analysis of Response Process Variables

Component	Label and % Variance	Variables and Component Loadings
1	Dynamic Work (9.4%)	Dynamic Work rating (.76) Reference to dynamic expressions (.69) Reference to defensive operations (.56) Descriptive Work rating (-.54)
2	Internal-External Focus (8.7%)	Focused VQ RGS (.85) Externalized VQ RGS (-.81)
3	Hesitant Acknowledgement (6.4%)	Number of patient communications RGS (.78) Proportion utterance RGS (-.74) Acknowledge and Confirm VRM RGS (.68)
4	Patient Involvement (5.9%)	Inform vs. Disclose VRM RGS (-.75) Modal Experiencing RGS (.74)
5	References to Anxiety and Wish (5.2%)	Reference to anxiety (.78) Reference to wish (.63)
6	Emotionality (5.0%)	Emotional VQ RGS (.81) Intrusion SDR RGS (.64) Total SDR RGS (-.42)
7	Demands on Therapist (4.8%)	Reference to therapist (.73) Question and Advise VRM RGS (.66) Reference to other objects (-.56)
8	Patient Confidence (4.5%)	Limited VQ RGS (-.96)
9	Reference to Familial Objects and Links (4.3%)	Reference to familial objects (.83) Reference to object links (.61)
10	Anxious Speech Production (4.1%)	Latency of response (-.78) Speech rate RGS (.42)
11	Relational Work (4.1%)	Relational Work rating (.83)
12	Denial (4.0%)	Assume and Reflect VRM RGS (.82)

Legend: RGS = residual gain score; VQ = Vocal Quality category; VRM = Verbal Response Mode component; SDR = Speech Disturbance Ratio.

Table 6: Predictor Variables Selected for Use in Regression Analyses on Response Component Scores

Variable Label	Description
Patient Characteristics	
1. TDC1	Good Therapy Patient component score, based on principal component analysis of therapist ratings of patient presentation collected following session two.
2. PATH1	Patient Symptom Distress component score, based on principal component analysis of patient self-report pretherapy outcome measures.
3. QRREL	Quality of Object Relationships global rating, derived from semi-structured QOR assessment interview.
4. PTXPT1	Patient Expectation of Own Activity Level component score, based on principal component analysis of patient expectation ratings collected following session two.
Relationship Characteristics	
1. PTALLNC	Mean Patient Alliance component score, based on principal component analyses of patient ratings of the work-affective relationship collected following each third of therapy.
Episode Characteristics	
1. DYNPLUS	The proportion of interpretations addressing two or more dynamic components across the episodes within each case defined Interpretation Complexity.
2. IWREFM	The mean number of interpretation references to Wish across the episodes within each case.
3. IAREFM	The mean number of interpretation references to Anxiety across the episodes within each case.
4. IDREFM	The mean number of interpretation references to Defense across the episodes within each case.
5. DYNCORM	The correspondence between interpretation references to dynamic components and formulation descriptions averaged across components and then aggregated across the episodes within a case. Used to represent mean Dynamic Correspondence.

(continued)

Table 6 (continued)

Variable Label	Description
Episode Characteristics (cont'd.)	
6. ITREF	Interpretation references to the person of the therapist aggregated across the episodes within a case. Used to represent mean References to Transference.
7. TCORM	The correspondence between interpretation references to the therapist and formulation descriptions of relationship dynamics aggregated across episodes within a case. Used to represent mean Transference Correspondence.
8. PREWORKM	Patient Readiness for Interpretation discriminant score, based on the discriminant function analysis of precondition process variables, aggregated across the episodes within a case.

Table 7: Regression Analyses on Aggregated Response Component Scores, N = 60

Response Component	Step and IV Entered		R^2 Cum.	F	R^2 Chg.	F	β
1. Dynamic Work	1	ITREFM	.1227	8.11**			-.425
	2	PREWORKM	.2233	8.20***	.1007	7.39**	.326
2. Internal-External Focus	1	PATH1	.1061	6.89**			.313
	2	IWREFM	.1759	6.08**	.0698	4.83*	.265
3. Hesitant Acknowledgment	1	TCORM	.1309	8.74**			-.470
	2	PATH1	.2004	7.14**	.0694	4.95*	.363
	3	TDC1	.2763	7.13**	.0760	5.88*	.302
	4	ORREL	.3222	6.54***	.0459	3.72[a]	.220
4. Patient Involvement	1	PREWORKM	.1682	11.73***			.464
	2	TCORM	.2478	9.39***	.0796	6.03*	.325
	3	DYNPLUS	.3294	9.17***	.0817	6.82**	-.361
	4	DYNCORM	.3817	8.49***	.0522	4.65*	.270
	5	TDC1	.4397	8.48***	.0580	5.59*	.246

(continued)

Table 7 (continued)

Response Component	Step and IV Entered	R^2 Cum.	F	R^2 Chg.	F	β
5. References to Anxiety and Wish	1 PATH1	.0728	4.55*			.338
	2 PTXPT1	.1670	5.71**	.0942	6.44**	.284
	3 IWREFM	.2237	5.38**	.0568	4.09*	-.240
6. Emotionality	No variables passed entry criterion					
7. Demands on Therapist	1 TCORM	.2064	15.08***			.507
	2 PTALLNC	.3395	14.65***	.1331	11.49***	-.298
	3 DYNPLUS	.3826	11.57***	.0431	3.91*	-.299
8. Patient Confidence	1 DYNPLUS	.1171	7.69**			-.483
	2 TCORM	.2016	7.20**	.0845	6.03*	.302
	3 PTXPT1	.2563	6.43***	.0546	4.11*	.259
	4 IWREFM	.3046	6.02***	.0483	3.82[a]	.226

(continued)

Table 7 (continued)

Response Component	Step and IV Entered	R^2 Cum.	F	R^2 Chg.	F	β
9. References to Familial Objects and Links	1 IAREFM	.0639	3.96*			.376
	2 PTXPT1	.1260	4.11*	.0620	4.05*	.265
10. Anxious Speech Production	1 DYNPLUS	.0733	4.59*			-.271
11. Relational Work	No variables passed entry criterion					
12. Denial	No variables passed entry criterion					

Legend: The 13 selected predictor variables included in each stepwise regression analysis were: TDC1 = Good Therapy Patient (component based on therapist item ratings after session two); PATH1 = Patient Symptom Distress (component based on patient self-report pretherapy outcome measures); ORREL = Quality of Object Relationships global rating; PTXPT1 = Patient Expectation of Own Activity (component based on patient expectation ratings after session two); PTALLNC = Patient Alliance (average of components based on patient ratings of the work-affective relationship collected following each third of therapy); DYNPLUS = proportion of interpretations addressing two or more dynamic components; IWREFM, IAREFM, and IDREFM = mean interpretation references to wish, anxiety, and defense components,

(continued)

Table 7 (continued)

respectively; DYNCORM = mean correspondence between interpretation references to dynamic components and formulation descriptions; ITREF = mean interpretation references to the person of the therapist; TCORM = mean correspondence between interpretation references to the therapist and formulation descriptions; and PREWORKM = Patient Readiness for Interpretation.

Note: IV = Independent Variable; R^2 Cum. = cumulative R^2 following each step in the regression analysis; R^2 Chg. = semipartial contribution made by each predictor selected; F = significance test for cumulative R^2 or change in R^2; β = standardized regression weight for each predictor selected.

The 13 selected predictor variables were entered as a block in each stepwise regression analysis. The df for F tests of the cumulative R^2 are (k, $N - k - 1$) where $N = 60$ and k = number of predictors entered into the equation on that step. The df for F tests of the R^2 change provided by each predictor selected are (1, $N - k - 1$).

[a]$p < .06$.

*$p < .05$; **$p < .01$; ***$p < .001$.

Table 8: Estimates of R^2 Shrinkage on Cross-Validation of Regression Equations

Response Variable	Number of IVs Selected	Observed R^2 Value	F	Estimated R^2 Value
Dynamic Work	2	.2233	8.20***	.1518
Internal-External Focus	2	.1759	6.08**	.1001
Hesitant Acknowledgment	4	.3222	6.54***	.2138
Patient Involvement	5	.4397	8.48***	.3276
References to Anxiety and Wish	3	.2237	5.38**	.1305
Emotionality	0	——	——	——
Demands on Therapist	3	.3826	11.57***	.3061
Patient Confidence	4	.3046	6.02***	.1933
References to Familial Objects and Links	2	.1260	4.11*	.0500
Anxious Speech Production	1	.0733	4.59*	.0270
Relational Work	0	——	——	——
Denial	0	——	——	——

Note. The estimated cross-validation R^2 is based on the formula from Stevens (1986; p. 80):

$$\text{Estimated } R^2 = 1 - (N - 1/N - k - 1)(N + k + 1/N)(1 - R^2),$$

where R^2 = the observed multiple correlation, N = the number of subjects (60), and k = the number of predictor variables entered into the regression equation.

*$p < .05$; **$p < .01$; ***$p < .001$.

Table 9: Pearson Correlations Between Response Component Scores and Therapist Session Outcome Indices

	Therapist Session Outcome Measure[a]				
	DISC	FU	UW	USE	DV
Response Component					
Hesitant Acknowledgment		.27*	.26*	.26*	
High QOR		.45**	.43*	.37*	
Low QOR		.06	.06	.13	
Patient Involvement	.25*	.15	.31*	.36**	
High QOR	-.01	-.08	-.00	.15	
Low QOR	.51**	.41*	.62***	.57***	
Emotionality		.17	.25*	.30*	
High QOR		-.00	.11	.34~	
Low QOR		.36*	.36*	.26	
References to Familial Objects and Links		-.20			-.39**
High QOR		-.36*			-.44**
Low QOR		.01			-.35*
Anxious Speech Production				-.32**	
High QOR				-.35~	
Low QOR				-.28	
Denial		-.27*			
High QOR		-.26			
Low QOR		-.30~			

[a]DISC = Patient Disclosed; FU = Patient Felt Understood; UW = Patient Understood and Worked with Interventions; USE = Session Usefulness; DV = Depth-Value. Smoothness-Ease has been omitted from the table as there were no significant correlations involving this outcome measure.

Note. The first row of coefficients for each response component represents the correlations calculated at the level of the entire sample ($N = 60$). The second and third rows of coefficients represent the correlations obtained for the high and low QOR subgroups, respectively ($n = 30$).

~$.05 < p < .10$.

*$p < .05$; **$p < .01$; ***$p < .001$.

Table 10: Pearson Correlations Between Response Component Scores and Therapy Outcome Indices

	Therapy Outcome Measure[a]					
	Post-Therapy			Follow-Up		
Response Component	F1	F2	F3	F1	F2	F3
Dynamic Work					-.11	
High QOR					-.49*	
Low QOR					.26	
Hesitant Acknowledgment	-.28*		-.28*			
High QOR	-.39*		-.16			
Low QOR	-.01		-.33~			
Patient Involvement			-.25*		-.28~	
High QOR			-.22		-.53**	
Low QOR			-.36~		-.08	
References to Anxiety/Wish					.21	
High QOR					-.16	
Low QOR					.50*	
Patient Confidence			-.13			
High QOR			-.43*			
Low QOR			.18			
References to Familial Objects/Links					-.30*	
High QOR					-.04	
Low QOR					-.58**	
Denial	.30*					
High QOR	.46**					
Low QOR	.15					

[a]F1 = General Symptomatology and Dysfunction; F2 = Individualized Objectives; F3 = External Observer Rating.

Note. The first row of coefficients for each response component represents the correlations calculated at the level of the entire sample ($N = 60$). The second and third rows of coefficients represent the correlations obtained for the high and low QOR subgroups, respectively ($n = 30$).

$\sim .05 < p < .10$.

$^{*}p < .05$; $^{**}p < .01$.

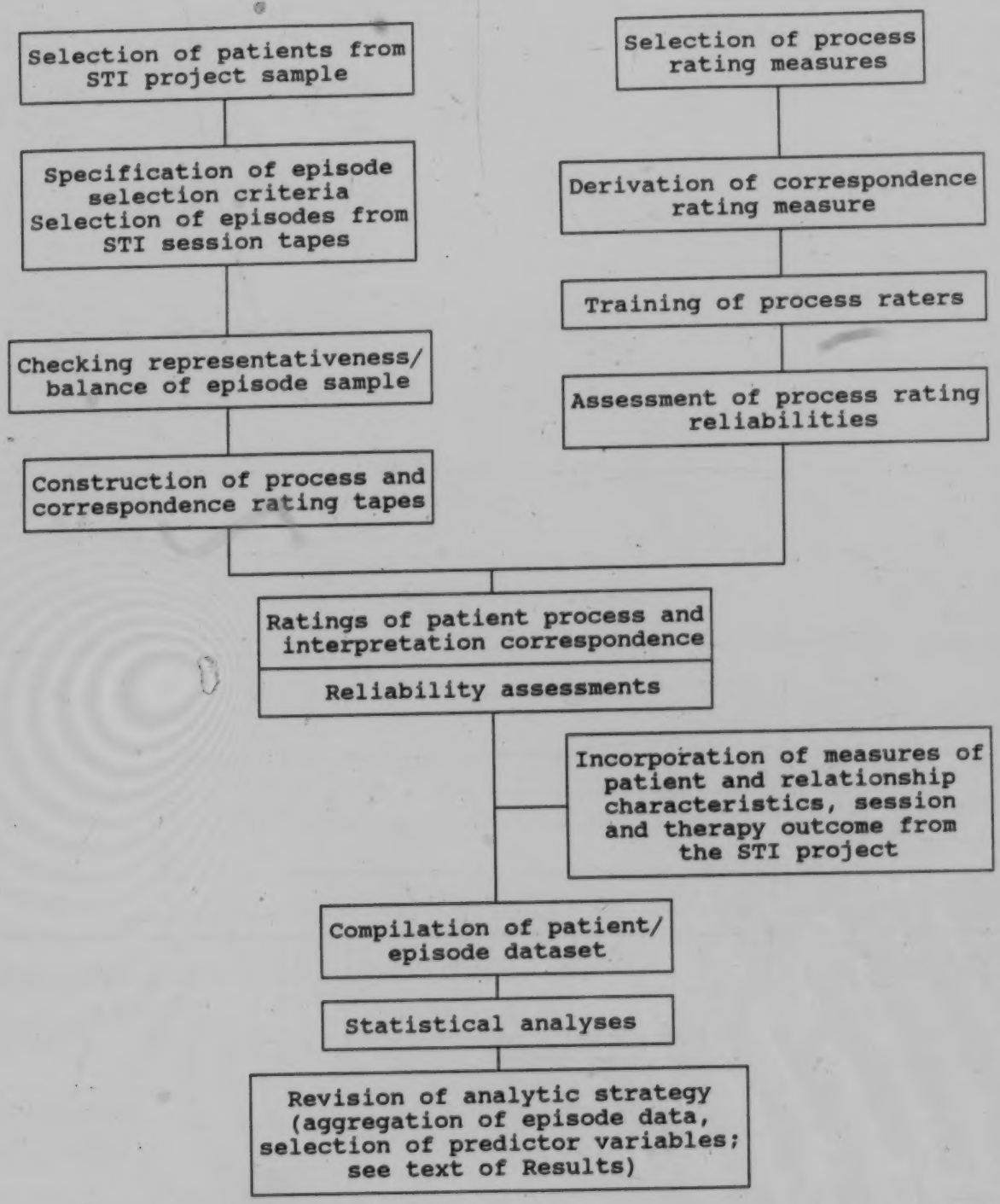
Selection of patients from STI project sample
Specification of episode selection criteria
Selection of episodes from STI session tapes
Checking representativeness/ balance of episode sample
Construction of process and correspondence rating tapes
Selection of process rating measures
Derivation of correspondence rating measure
Training of process raters
Assessment of process rating reliabilities
Ratings of patient process and interpretation correspondence
Reliability assessments
Incorporation of measures of patient and relationship characteristics, session and therapy outcome from the STI project
Compilation of patient/ episode dataset
Statistical analyses
Revision of analytic strategy (aggregation of episode data, selection of predictor variables; see text of Results)

Figure 1 - Overview of Study Methods

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Appendix I: Therapist Intervention Rating System (TIRS) Categories

1. Noninterventions (silence of 30 secs. or more).

2. Formal Interventions.
   A. Greetings, farewells, congratulations, condolences. E.g. "Excuse me".

   B. Facilitative communication and simple agreement. E.g. "Mmhm".

   C. Nonfacilitative communication and simple disagreement. E.g. "I don't know".

3. Information-Providing Interventions.
   A. Practical. E.g. "Your next appointment is Thursday".

   B. Informational. E.g. "I will listen and try to help you understand".

   C. Reflection. E.g. "So he didn't want to marry her".

   D. Clarification without confrontation: Providing additional information. E.g. "That's what they call having a bad conscience".

   E. Clarification with confrontation. E.g. "That might be true but no one will ever know for sure".

4. Information-Requesting Interventions (Questions). E.g. "How does it go between you?".

5. Directive Interventions (Advice): Common sense interventions concerning extra-session events. E.g. "She should tell him directly about how she feels".

6. Nondynamic Component Interventions: Any of the above categories that include references to resultant expressions (i.e. patient affect, cognitions or behaviors) and/or objects (other persons in relationship with the patient). E.g. Category 6.3D: A clarification without confrontation (3D) including a resultant expression (patient affect) and an object: "I got a sense of a certain pleasure in you that she failed".

7. Single Dynamic Component Interventions. E.g. Wish: "I think that you always wanted to get closer to your father".

8. Double Dynamic Component Interventions. E.g. Two dynamic components of the same type (wish) in conflict: "It seems that there's a battle between your sexual longings for her and your wish to keep her as a perfect mother".

Appendix I (continued)

9. Triple Dynamic Component Interventions. E.g. A wish, anxiety and defense: "Your need to be closer to me appears so threatening that you paint your therapy in black, saying that you're not that involved".

10. Quadruple Dynamic Component Interventions. E.g. A defense, wish, dynamic expression (affect to affect) and anxiety: "So you talk a double language when you say 'I'm dying to get involved', but then turn around and say 'Whenever I really get involved, I end up badly hurt', so you must be reluctant to pursue it again and, indeed, be panicking at the thought".

Appendix II: Patient Response to Interpretation Category Scale

The patient's verbal response to a dynamic interpretation is categorized along a dimension of "nonwork-work". An interpretation is defined according to the Therapist Intervention Rating System (TIRS). There are three categories for work (Descriptive, Relational and Dynamic) and one category for nonwork (Avoidance). Patient response ratings are applied to the first minute of patient verbalization material following an interpretation.

Work: There are three criteria that must be satisfied to rate a patient's response as indicative of work: 1) The patient must preserve a focus on him/herself; 2) The patient must preserve a focus on the meaning of the interpretation; and 3) The patient must add something important to what is conveyed by the interpretation.

Descriptive Work provides additional detail (documentation) to the therapist's statement. The response elaborates upon the interpretation without indicating additional objects or situations that have a similar dynamic relationship to the patient or without identifying additional dynamic components.

Relational Work provides additional objects (linking response) or situations (descriptions of pervasiveness of patterns) that have a similar dynamic relationship to the patient.

Dynamic Work provides additional dynamic components (wish, anxiety, defense, or dynamic expression).

Nonwork: The patient does not engage in work, i.e. he/she does not add something important to the interpretation. There are many ways of avoiding work by doing something else. These include: remaining silent, requesting clarification, reflecting what the therapist said, changing the object of focus to someone else, and/or changing the topic (content) of focus. Agreeing with the therapist and/or expressing feeling are not criteria for work. A patient who expresses agreement and who enthusiastically reflects what the therapist said—without making any contribution to exploration of the issue at hand—still receives a rating of nonwork.

Appendix III: Speech Disturbance Categories

The SDR Categories

Correction. Corrections do not add any significant new information but rather act to clarify old information at the level of pronunciation, grammar, or meaning. Corrections involve replacing a word, phrase or clause; the topic always remains the same. A correction can occur only within sentences.

E.g. i) Pronunciation: "I have two trothers, brothers."

ii) Grammar: "She said she didn't, wouldn't like to go."

iii) Meaning: ". . we went skating . . no, skiing."

Fragment. Sentences or clauses left incomplete in meaning or grammar constitute fragments. These items are isolated and "hang" unfinished within the communication. It is often the conclusion of a sentence that appears to be missing.

E.g. "When I saw her I said, I had told her about those other things . .".

"Well, if she says something at, my grandmother is really the boss in the family . .".

Repetition. The model for this category is the stutter. Repetitions impede the flow of speech and apply to parts of words, whole words, or parts of a sentence. Repetition can occur only within sentences. If it is judged that the speaker repeats an item for emphasis, the item is not considered to be a repetition. If an item is repeated more than once, only the first instance is tallied.

E.g. "That's why I don't, I don't like it very m-much."

Intrusion. Intrusions are non-verbal sounds or noises emitted by the speaker which intrude upon the flow of speech and act meaningfully as "breaks". Coughs, sighs, laughs, and throat-clearing are typical examples.

Distortion. This category can occur within a word or within a sentence. Generally viewed as word mispronunciations or distortions of the grammar or meaning of sentences, distortions are generally defined as any identifiable speech disturbance which cannot be assigned to any of the other categories.

E.g. i) Pronunciation: "I have two trothers, John and Jim."

ii) Grammar: "I don't know other people, how they think."

iii) Meaning: "She didn't want to go so, she was thrilled to go."

Appendix III (continued)

Break. The continuity of one line of thought is broken by the intrusion of another. A disruption of grammar may but need not occur. There must be an actual shift of topic. "Off-the-cuff" comments, references or questions directed to the interviewer can be considered as breaks.

E.g. "I was thinking about you on the way over. There was a terrific accident at the corner".

Procrastination. Procrastination is defined as the deliberate use of sounds, words, or phrases by the speaker to delay verbal communication. Common examples are "um", "ah", and expressions such as "like...", "you know...", "well...", "I don't know", and so on. In some cases vowels are elongated to achieve the same effect.

Procrastination is NOT to be coded. However, the coder is expected to be familiar with this category so as to avoid coding these elements as any of the other speech disturbance categories.

General Procedures for Coding Speech Disturbance

1) The beginning and ending portions of a segment to be coded are often incomplete due to the manner in which the segment was recorded. When this is the case, code only those categories that are clearly present.

2) Colloquial speech or slang should not be coded as speech disturbance.

3) Items should not be double coded. If a sound, word, or phase qualifies as being a member of two or more categories, the rater must choose the most appropriate category to the exclusion of the other.

4) When an element is nested or couched within a larger element, e.g. a repetition within a fragment, both categories are coded.

5) Intonation often serves as an important clue to the identification of categories. For example, fragments will sometimes have a trailing quality or sound as though they will be completed but are not. Intonation can also be used to detect distortions. For example, a communication may sound complete or final even though the content and/or grammar is obviously disjointed or even nonsensical.

6) The procedure for coding speech disturbance is as follows: a) Listen to the segment to be rated once at normal speed. b) Listen a second time at half speed and code speech disturbances. Make use of the pause control to be clear about category assignment. c) Listen a third time at normal speed to review coding. d) Repeat preceding step an additional time if still uncertain about codes before going on to the next segment.

Appendix IV: Vocal Quality Category Descriptions

1. Focused (F)

   a) Perceived energy is moderate to high. Voice may be soft but on platform.
   b) Accents are achieved with loudness and/or drawl more than pitch rise.
   c) Accentuation pattern is irregular and often ragged.
   d) Pace is uneven.
   e) Terminal contours are ragged and unexpected.
   f) Disruption of pattern does not occur.

   Impression: A "turning inward" of attention and a concentration of energy on internal material. The effort to put things into words seems more for the speaker than for the listener. Possesses a quality of "groping", "hesitation", or "pondering".

2. Externalizing (X)

   a) Perceived energy is moderate to high. Voice may be a bit above platform but push is adequate.
   b) Accents are achieved more with pitch rise than with loudness or drawl.
   c) Accentuation pattern is very regular with a "sing-song" quality.
   d) Pace is even.
   e) Terminal contours are pre-planned and expected.
   f) Disruption of pattern does not occur.

   Impression: Attention is deployed "outward" to produce an effect on the listener. Content appears not to be newly experienced; energy is invested in the recounting of material rather than its exploration. Possesses a quality of "talking at" the listener.

3. Limited (L)

   a) Perceived energy is low. Voice does not appear to rest on platform and there is inadequate push.
   b) Accents are usual for English.
   c) Accentuation pattern is usual for English.
   d) Pace is usual for English.
   e) Terminal contours are usual for English but energy tends to peter out at the end of statements.
   f) Disruption of pattern does not occur.

   Impression: Appears to involve a "holding back" or withdrawal of energy. The effect of "thinness" is pronounced and suggests a distance from what is being said and/or experienced.

Appendix IV (continued)

4. Emotional (E)

a) Perceived energy cannot be assessed.
b) Accents cannot be assessed.
c) Accentuation pattern is irregular.
d) Pace is uneven.
e) Terminal contours are unexpected.
f) Disruption of pattern does occur and is the hallmark of this category.

Impression: The speaker appears to be fighting for control of his/her voice.

Appendix V: The Experiencing Scale

Stage One

The chief characteristic of this stage is that the content or manner of expression is impersonal. In some cases the content is intrinsically impersonal, being a very abstract, general, superficial, or journalistic account of events or ideas with no personal referent established. In other cases, despite the personal nature of the content, the speaker's involvement is impersonal, so that he reveals nothing important about himself and his remarks could as well be about a stranger or an object.

The content is not about the speaker. The speaker tells a story, describes other people or events in which he is not involved, or presents a generalized or detached account of ideas. Nothing makes the content personal.

The content is such that the speaker is identified with it in some way but the association is not made clear. The speaker refers in passing to himself but his references do not establish his involvement. First person pronouns only define the speaker as an object, spectator, or incidental participant. Attention is focused exclusively on external events. For example, "As I was walking down the street I saw this happen . . "; "I read a book that said . . "; "I put the lid on the box"; "He stepped on my toe." The speaker does not supply his attitudes, feelings, or reactions. He treats himself as an object or instrument or in so remote a way that the story could be about someone else. His manner of expression is remote, matter-of-fact, or offhand, as in superficial social chitchat, or has a mechanical or rehearsed quality.

The content is a terse, unexplained refusal to participate in an interaction, or an avoidance or minimizing of an interaction. Minimal responses without spontaneous comments are at stage one.

Stage Two

The association between the speaker and the content is explicit. Either the speaker is the central character in the narrative or his interest is clear. The speaker's involvement, however, does not go beyond the specific situation or content. All comments, associations, reactions, and remarks serve to get the story or idea across but do not refer to or define the speaker's feelings.

The content is a narrative of events in which the speaker is personally involved. His remarks establish the importance of the content but make no reference to the quality of this involvement. Remarks and associations refer to external facets of the narrative, other people, the events, objects, the speaker's actions; they do not give his inner reactions or perspective. If the narrative includes the speaker's thoughts, opinions, wishes, or attitudes, these only describe him intellectually or superficially. Some speakers refer to ideas and thoughts as if they were feelings; e.g., "I feel that I'm a

Appendix V (continued)

good farmer"; "I feel that people should be more considerate." If terms like "I think" or "I wish" could be substituted for "I feel" without changing the meaning, the remark is at stage two.

The events narrated are impersonal but the speaker explicitly establishes that the content is important to him. For example, he expresses interest in or evaluates an event, but does not show the quality or amount of his interest or concern.

The content is a self-description that is superficial, abstract, generalized, or intellectualized. No reference is made to the speaker's feelings or internal perspective. The segment presents the ideas, attitudes, opinions, moral judgements, wishes, preferences, aspirations, or capacities that describe the speaker from an external or peripheral perspective. One sees him from the outside.

The content reveals the speaker's feelings and reactions implicitly but not explicitly. If the speaker is emotionally aroused, it is evident from his manner, not from his words. If the content is the sort that ordinarily would be personally significant, the speaker does not say so. If the speaker mentions his feelings, he treats them abstractly, impersonally, as objects, or attributes them to others. Third person pronouns, especially "one feels" indicate depersonalization.

The content is an account of a dream, fantasy, hallucination or free association. These should be treated as narratives of external events. They are at stage two if the speaker's remarks associate him with the account but do not give his feeling reactions to it.

Stage Three

The content is a narrative or a description of the speaker in external or behavioral terms with added comments on his feelings or private experiences. These remarks are limited to the events or situation described, giving the narrative a personal touch without describing the speaker more generally. Self-descriptions restricted to a specific situation or role are also at stage three.

The content is a narrative of events or description of an aspect of the speaker's environment (past, present or, future) with parenthetical personal remarks that give one of the following:

1) The speaker's feelings at the time of the event or in retrospect about it. For example, "He didn't call me back and I was angry" or "He didn't call me back; thinking about it makes me angry."

2) The personal significance or implications of the situation by relating it to the speaker's private experience. For example, "It reminded me of being scolded as a child"; "It was one of those queer moods that comes on me when I get tired."

Appendix V (continued)

3) The speaker's state of awareness at the time of the event. Such remarks include details of motives, consciousness, private perceptions, or assumptions which are limited to the event. For example, "I knew at the time that I was reacting too strongly"; "I was aware of wanting to defend myself"; "I did it even though I sensed how foolish I was." Accounts of dreams, hallucinations, fantasies, and free associations should be treated as narratives; they are at stage three if feelings are mentioned.

The content is a self-description of circumscribed aspects of the speaker's life style or role or of his feelings and reactions presented only in behavioral terms. The speaker might, for example, describe how he functions as a parent or in his job, or tell what he does when he gets angry. Personal remarks enrich the description of the situation or reaction to it, but are limited to the immediate context.

In response to a direct question, the speaker tells what his feelings are or were. The interviewer's words are not needed to identify the feeling.

Stage Four

The content is a clear presentation of the speaker's feelings, giving his personal, internal perspective or feelings about himself. Feelings or the experience of events, rather than the events themselves, are the subject of the discourse. By attending to and presenting this experiencing, the speaker communicates what it is like to be him. These interior views are presented, listed, or described, but are not interrelated or used as the basis for systematic self-examination or formulation.

The initial content is a specific situation that is widened and deepened by the speaker's self-references to show what he is like more generally or more personally. The speaker must describe his feelings in great detail, refer to feelings as they occur in a range of situations, provide personal reactions to specific feelings, or relate reactions to his own self-image. The feelings can be immediate responses or remembered responses to past situations. Self-descriptive comments must deal with internal and personal aspects of the speaker, not with moral evaluations or external or behavioral characteristics.

The content is a story told completely from a personal point of view. The details of feelings, reactions, and assumptions are integral to the narrative, so that what emerges is a detailed picture of the speaker's personal experience of the events.

The content is a self-characterization in which the speaker tells about his personal perspective. In talking about himself he makes explicit his feelings, personality, assumptions, motives, goals, and

private perceptions. By revealing these internal parts of himself, the speaker gives a detailed picture of one or more of his states of being. The material presented is not analyzed or interrelated. The use of abstract terms or jargon to describe elements of personality must be expanded with some internal detail to warrant a rating of four. For example, the statement, "My ego was shattered" would need elaboration, such as "I felt as if I was nothing, that no one would ever notice me."

Stage Five

The content is a purposeful exploration of the speaker's feelings and experiencing. There are two necessary components. First, the speaker must pose or define a problem or proposition about himself explicitly in terms of feelings. The problem or proposition may involve the origin, sequence, or implications of feelings or relate feelings to other private processes. Second, he must explore or work with the problem in a personal way. The exploration or elaboration must be clearly related to the initial proposition and must contain inner references so that it functions to expand the speaker's awareness of his experiencing. Both components, the problem and the elaboration, must be present.

The proposition or problem must be given clearly or strongly and should include references to feelings or to the personal experience at issue. If the internal basis of the problem is weak, as in references to undesired behaviors or styles, propositions about the external precipitants of behavior or feelings, or presentation of the temporal sequence of feelings, then the exploration or elaboration must have extensive inward references. It must be clear that the speaker is focussing on his inner experience rather than simply justifying his behavior.

The problem or hypothesis about the self must be oriented to feelings, private reactions, or assumptions basic to the self-image. It can be presented in different ways:

1) A feeling, reaction, or inner process, and in some cases a behavior pattern, can be defined as problematic itself or as seeming to conflict with other feelings or aspects of the self; for example, "My anger is the problem" or "Why am I so angry?"

2) The speaker may wonder whether or to what extent he has a specific feeling; not "What do I feel?" which would be stage three or four, but "Do I really feel angry" or "How angry am I, really?"

3) The problem or proposition can be defined in terms of the personal implications, relationships, and inner ramifications of a feeling, including its origins and causes, its place in a temporal sequence of feelings and inner events, its mode of expression, or its personal and private implications. For example: "Do I get angry when I feel inadequate?" or "My getting angry means I've lost control of myself"

or "I get angry just the way my mother used to."

4) Feelings, reactions, and internal processes may be compared.

All problems or propositions about the self must be explored or elaborated with inner referents. Examples or illustrations may show how the speaker experiences the problem or proposition in different settings or at different times; if so, the pertinence of the illustration to the problem must be explicit. The problem or proposition may be related to other internal processes or reactions. Alternatively, through hypothesis, speculation, or analogy the speaker clarifies the nature or private implication of the central problem, its causes, or ramifications.

At stage 5 the speaker is exploring or testing a hypothesis about his experiencing. While he must define the subject of this process clearly with inner references, his manner may be conditional, tentative, hesitant or searching.

Stage Six

The content is a synthesis of readily accessible, newly recognized, or more fully realized feelings and experiences to produce personally meaningful structures or to resolve issues. The speaker's immediate feelings are integral to his conclusions about his inner workings. He communicates a new or enriched self-experiencing and the experiential impact of the changes in his attitudes or feelings about himself. The subject matter concerns the speaker's present and emergent experience. His manner may reflect changes or insights at the moment of their occurrence. These are verbally elaborated in detail. Apart from the specific content, the speaker conveys a sense of active, immediate involvement in an experientially anchored issue with evidence of its resolution or acceptance.

The feelings involved must be vividly, fully, or concretely presented. Past feelings or past changes in feelings are vividly presented or relived as part of the speaker's current experience.

The structuring process relates these immediately felt events to other aspects of the speaker's private perspective. Thus, a feeling might be related to the speaker's self-image, his private perceptions, motives, assumptions, to another feeling, or to more external facets of the speaker's life, such as his behavior. In each case the nature of the relationship must be defined so that details of how the speaker works inside and the precise, internal impact of the changes is revealed. It is not merely the existence of a relationship, nor a sequential listing of feelings and inner experiences, but the nature and quality of the association that is made clear.

The synthetic, structuring process leads to a new, personally meaningful inner experience or resolves an issue. As a result of

working with his feelings and other aspects of his private perspective, and exploring their relationship to each other, the speaker has new inner experiences. These may be new feelings or changed feelings, as when the speaker says, "Now I'm beginning to see that my feeling of guilt is caused by my ideas about work, and it makes me feel much less worried about that sense of guilt. What a relief!" Alternatively, an issue may be resolved: "You know, I've always kept my anger bottled up because I've been afraid of losing control of myself. Now I realize it wouldn't be so bad if I did; maybe I'd yell or throw something, that's all." If the speaker starts with a concrete external problem, the related feelings must be presented as part of his present experience and the emergent formulation must change his perception of the problem in some way. For example, "I never asked a girl out because I'm so short. I'm still kind of afraid a girl might call me a shrimp or something, but I'm willing to take that risk now. I guess it's because I realize that even if she did, it wouldn't break me up. I wouldn't like her very much, but I'd feel better about myself for having at least tried." Some elements in the emergent structure may be external, behavioral, or intellectual, as in a decision to act in a different way. Still, they must be clearly grounded to immediate feelings. It is never sufficient only to state that a resolution has taken place; the experiences underlying the structuring process must be revealed or relived to satisfy the criteria for stage six.

Stage Seven

The content reveals the speaker's expanding awareness of his immediately present feelings and internal processes. He demonstrates clearly that he can move from one inner reference to another, altering and modifying his conceptions of himself, his feelings, his private reactions to his thoughts or actions in terms of their immediately felt nuances as they occur in the present experiential moment, so that each new level of self-awareness functions as a springboard for further exploration.

Formulations about the self at stage seven meet the requirements for stage six with the additional stipulation that they be applied to an expanding range of inner events or give rise to new insights. The development may follow one of several different patterns:

1) The speaker may start with an internally anchored problem, explore it, and reach an internally anchored conclusion that he then applies to a number of other problems.

2) He may arrive at several related solutions to a single problem and reintegrate them. Any self-analysis is followed by a more comprehensive or extensive synthesis.

3) The speaker may use several different formulations about himself, each of which meets the requirements for stage six, and integrate, relate, or reduce them through a more basic or general formulation.

Appendix V (continued)

4) He may start with one conclusion of the type reached in stage six and apply it to a range of situations, each with inner referents explicit, to show how the general principle applies to a wide area of his experience.

Experiencing at stage seven is expansive, unfolding. The speaker readily uses a fresh way of knowing himself to expand his experiencing further. Manner at this stage is often euphoric, buoyant, or confident; the speaker conveys a sense of things falling quickly and meaningfully into place.

Appendix V (continued)

The Short Form of the Experiencing Scale

Stage	Content	Treatment
1	External events; refusal to participate.	Impersonal, detached.
2	External events; behavioral or intellectual self-description.	Interested, personal, self-participation.
3	Personal reactions to external events; limited self-descriptions; behavioral descriptions of feelings.	Reactive, emotionally involved.
4	Descriptions of feelings and personal experiences.	Self-descriptive; associative.
5	Problems or propositions about feelings and personal experiences.	Exploratory, elaborative, hypothetical.
6	Synthesis of readily accessible feelings and experiences to resolve personally significant issues.	Feelings vividly expressed, integrative, conclusive or affirmative.
7	Full, easy presentation of experiencing; all elements confidently integrated.	Expansive, illuminating, confident, buoyant.

Appendix VI: Patient Content Reference System

Introduction

A system was needed to record the manner in which the patient communicates to the therapist, and patient references to dynamic components and objects. The PCRS is a multidimensional system which requires the rater to identify the response modes the patient is using to communicate to the therapist, patient references to dynamic components and dynamic expressions, and patient references to objects and object links in each segment rated. The number and type (nonintegrated or integrated) of patient references to dynamic components will be used to determine one of five categories of patient work for the segment. Categorizations of patient response mode will be applied to each discrete and independent "thought unit" within a rating segment; the summary measure will be the proportion of all "thought units" in the segment devoted to each response mode. "Thought units" in the PCRS vernacular are similar to the measure employed with the SDR and VQ rating systems. References to dynamic components and objects will be categorized for the segment as a whole.

The PCRS is comprised of a) an eight category nominal scale for categorizing the intent of patient statements, i.e. the manner in which the patient is communicating to the therapist; b) a descriptive tally of patient references involving three types of dynamic components and four types of dynamic expressions; c) five categories of patient work based on the number of dynamic components referenced and whether the relationship between them is identified; and d) a descriptive tally of patient references involving eight types of objects (individuals external to the therapy situation, but also including the therapist, that the patient is involved with interpersonally).

Procedure for Using the PCRS

Raters may rely on different methods for completing the PCRS task. A single pass through the material may be sufficient to record all PCRS category assignments or the rater may play the segment repeatedly for assignment of each type of category judgement (response modes, dynamic components, work rating, and objects).

1) The rater first categorizes the response mode of each "thought unit" in the segment. Thought units are distinct units of patient speech which can employ a subject, object and verb function; can be identified as closely as possible with definitive breaks in speech flow or content; and serve to express a complete, independent thought. A response mode determines the intent of a discrete patient communication to the therapist (e.g. the patient intends to disclose personal information or ask a question of the therapist). For the segment as a whole, the rater calculates the proportion of patient "thought units" which were assigned each response mode category, e.g. of 8 patient "thought units" in the segment, 0.6 (5) were categorized as disclosures and 0.4 (3) as questions, with no other response mode categories being assigned.

2) The second step in the PCRS task is to record all patient references to dynamic components and dynamic expressions.

Appendix VI (continued)

a) For the segment as a whole, the rater tallies patient references to a wish, a reactive anxiety, a defensive process, or a dynamic expression. All appropriate dynamic components are tallied for each reference. For the segment as a whole, the number of each type of component is tallied. If different examples of particular components are referenced, these are tallied as independent. If the patient makes a reference to different versions of a component already referenced, additional tallies are not assigned for that category. The specific expressions referenced and any components in conflict identified by the patient are also recorded.

b) The rater next determines whether there are any dynamic expressions. This is a particularly difficult task and involves studying each affective, behavioral, cognitive, or vague expression referenced in the patient's utterances and determining whether it is presented as being in conflict with, causing, giving rise to, or impacting on another expression. The causal connection must be clear in the rater's mind. If the expression is presented as an end state, i.e. as not being part of a conflict within the patient or not having a dynamic influence on another part of the patient, the reference is to a resultant expression and is not tallied in the total number of dynamic expressions referenced in the segment.

3) The third step in using the PCRS is to rate the patient's "work" in the segment. This task involves two judgements. First, the rater counts the number of references to dynamic components made by the patient. Second, if the patient referenced two or more components, the rater judges whether the relationship between the components was identified by the patient. The work rating assigned is thus a function both of the number and degree of integration evident in patient references to dynamic components.

4) The final aspect of the procedure is to record all patient references to objects and object links in the segment. To tally an object reference, the patient must indicate the process in which he/she and the object are engaging or the relationship (impact) between the two. The fact that the person is an important figure to the patient is not sufficient. When the patient refers to the same process (affective, behavioral, or cognitive) as occurring between him/herself and two independent objects, an object link should be tallied. Independent object references and links will be tallied for the segment as a whole.

Appendix VI (continued)

Response Mode Categories

Response modes are categories of language which imply a specific interpersonal intention to another person, in this instance from patient to therapist. The categorization is independent of the content of the communication. The phrase "I don't know" is considered a procrastination and is not categorized unless in response to a therapist inquiry (Acknowledgment).

1. Disclosure. The patient reveals something about his/her own internal experience. Direct reports of the patient's own thoughts, feelings, perceptions, intentions, desires, or opinions are scored as disclosure. Rhetorical questions which imply an opinion are also scored as disclosure. Disclosure form is first-person ("I"). Utterances whose subject is "we" are disclosure form if the referent does not include the therapist but some other third party (e.g. "We both felt angry after that happened").

   E.g. "I'm not sure how to react when you sit there like that."
   "I feel sad that we've only got two sessions left."

2. Question. The patient attempts to fill a gap in his own frame of reference by asking for information from the therapist. Questions are interrogative in form, characterized by inverted subject-verb order and/or interrogative words such as who, what, when, where, why and how.

   E.g. "What do you think about what I said?"
   "Why couldn't we meet twice a week?"

3. Information. The patient provides statements of fact or objective description. Information need not, however, be true or emotionally neutral. Informational statements, in contrast to disclosures, could be judged true or false without access to the patient's internal frame of reference; the observer could assess the information's accuracy if he/she were in the right place at the right time. Information form is third-person ("he", "she", "it" or a noun).

   E.g. "She got angry long before I did."
   "That car has been nothing but problems."
   "My sister treated me like an idiot."

4. Acknowledgment. The intent of acknowledgment is to convey reception of or receptiveness to communication from the therapist. Acknowledgments are devoid of content and the patient does not convey or seek any information. Acknowledgment forms include nonlexical utterances such as "mm-hm" and "oh" and content-free lexical utterances such as "yeah", "no", or "yessir". Salutations such as "hi" or "hello" or names or titles used in addressing the therapist are also scored as acknowledgment.

5. Confirmation (or disconfirmation). Statements of joint thought or

Appendix VI (continued)

action, agreement and disagreement, and expressions of similarity or dissimilarity of opinion or experience are generally confirmations. Confirmation form is first-person plural ("we") where the therapist is included in the referent.

E.g. "We disagree about that part."
"We've been through this a hundred times."

6. Reflection. Restatements, summaries, and clarifications of a preceding therapist statement(s) are scored as reflection. An utterance need not be accurate to be scored reflection. Reflection form is second-person ("you") where the verb describes an action or experience of which the therapist is presumed to be aware.

E.g. "You seem to feel like I'm avoiding this topic."
"You said I treat him that way because of feelings I have for my father."

7. Advisement. The patient's attempts to guide the behavior of the therapist are scored as advisement. The patient tells the therapist what the patient wants done, given his/her view of the situation. Advice, commands, instructions, suggestions, permission, and prohibition are scored as advisement. Advisement form is imperative, with the subject "you" understood but omitted, or second-person ("you") where the verb conveys permission, prohibition, or obligation.

E.g. "Tell me about you for a change."
"It would be a good idea to extend the therapy a few more sessions."

8. Assumption. Assumption is the patient's view of another's experience. Making connections for the person, explaining the person to himself, confronting, labeling, reassuring, drawing conclusions for the person, or drawing judgements or evaluations of the person are generally scored as assumption. Assumption form is second-person ("you") where the verb describes a state or ability of the individual the patient is referencing.

E.g. "You're absolutely right about that."
"He seems to get uncomfortable whenever I begin to talk about those feelings."
"My sister thought I was an idiot."

The rater is expected to code the intent of the patient's utterance. The form of the utterance may often not match the category description and/or intent. E.g. "I want you to give me two sessions this week" is an advisement made in the form of a disclosure. The rater must ask whether the patient intended to disclose, question, inform, acknowledge, confirm, reflect, advise, or assume regardless of the form of the utterance.

Appendix VI (continued)

Dynamic Component Categories

There are four types of dynamic components: wishes, anxiety, defensive processes, and dynamic expressions. To be rated, a dynamic component must belong to the patient, i.e. be part of the patient's internal experience. The dynamic components are indicated by: W = Wish; A = Anxiety; D = Defensive Process; and E-E = Dynamic Expression. With a dynamic expression, the affect, behavior, or cognition that is exerting a dynamic influence within the patient is identified with the appropriate subscript, i.e. (Ea) = Affective dynamic expression; (Eb) = Behavioral dynamic expression; and (Ec) = Cognitive dynamic expression. When the dynamic expression involves the absence of an affect, behavior, or cognition, or when the rater is unclear how to classify the expression, a subscript indicating "vague" is coded, i.e. (Ev).

Wish. To tally a wish, the patient's statement must be about the presence of a wish, drive, or motive. E.g. "I want him to come back." This would be tallied under W. If the statement is about the absence of a wish, it can be rated as a dynamic component if it is presented as a dynamic expression. E.g. "I didn't want to get hurt again so I said I couldn't make it." The rater would record this statement as (Ev-Eb); the vague expression stands for "not wanting to get hurt again" and the behavioral expression for "saying I couldn't make it". Note the coding for a dynamic expression (see below) involves the use of a hyphen to denote a causal linkage. A dynamic component can also be tallied if the absence of a wish is presented by the patient as being in conflict with another wish. E.g. "I want him to come back but I really don't want to get hurt again." The rater would tally a wish and record this statement as (W)(Ev). Note that when the patient presents two components as giving rise to some conflict, the codes are recorded contiguously. If a wish is presented as a defensive process in the sense of wanting to defend, the wish is scored. E.g. "I want to avoid looking at those hurt feelings" would be tallied under W. If the patient asks a question involving a wish, it must be specifically identified and described as present (occurring).

Anxiety. To tally anxiety, the patient's statement must present a fear or anxiety as a causal agent, as in opposition to a wish, or as in reaction to some internal state. E.g. "I'm afraid of being hurt again so I refused his invitation." The rater would tally this patient's statement under A; the anxiety refers to the "fear of being hurt again". E.g. "I want to get involved again but I'm scared." The rater tallies a wish and anxiety and addresses the patient's stated conflict by recording (W)(A); the wish, "to get involved again", is in conflict with the fear of same. References to fear resulting from external stimuli are not coded as anxiety. E.g. "I'm scared of the silence in here." If the patient asks a question involving a fear, it must be specifically identified and described as present (occurring).

Defensive Processes. To tally a defensive process, the essential idea that must be communicated by the patient is the quality of avoiding,

resisting, minimizing, distorting, or being reluctant. E.g. "I try to ignore how angry I get when he does that." Components being defended against may be dynamic (wishes or anxieties) or nondynamic (anger, helplessness). E.g. "I really downplay my wanting to be in a new relationship" or "I really downplay my anger". To tally a defense, however, the statement need not identify what is being defended against nor how the defense manifests itself. E.g. "I feel reluctant today." When the patient's statement does identify a dynamic component as what is being defended against, all references are tallied. E.g. "This is silly; I do want another relationship but I keep rejecting your suggestions to talk about that." The rater would record this statement as representing a conflict involving both a wish and a defense, i.e. (W)(D) and tally both a wish and defense. If the patient asks a question about a defense, it must be presented as present (occurring), in opposition to an internal force, and what is being defended against must be specifically stated.

Dynamic Expressions. Dynamic expressions are affective, behavioral, cognitive, or vague expressions that are presented as exerting a dynamic influence on the patient; the patient presents the expression as part or manifestations of an internal conflict. To tally as a dynamic component, the expression must be presented as being in conflict with, causing, giving rise to, or impacting on another expression of the patient. The second or resultant expression must be stated, and the connection between the dynamic and resultant expression must be clear in the rater's mind. Both expressions are recorded within a parenthesis and connected with a hyphen. Appropriate subscripts are included. E.g. "I felt guilty about what I said so I bought her some flowers on the way home" addresses the sequence of affective dynamic expression, "feeling guilty", to behavioral resultant expression, "buying flowers", and is coded (Ea-Eb). E.g. "I was so angry with him, I didn't call him all week." In this instance, the affective expression gives rise to a vague expression (i.e. the absence of a behavior), and the rater would assign a code of (Ea-Ev).

When the patient expresses two wishes in conflict but in terms of "not wanting" something, they are classified as dynamic expressions in conflict. E.g. "I don't want him to come back but I don't want to be alone either." The rater tallies a dynamic expression and records the appropriate code; the code in this instance is (Ev)(Ev).

Patient Work Rating

The segment of patient material is assigned one work rating. The rating is based on a) the number of dynamic components referenced by the patient and b) whether the patient identifies the relationship between them. A reference to dynamic components is integrated if the patient identifies the impact of one dynamic component on another or clearly and explicitly states the conflictual nature of the dynamic relationship. "I want him to come back but I'm afraid of being rejected again" is recorded as (W)(A); since the conflict is specified, the reference results in a

work rating (4) for the segment. The work categories are as follows:

0 - The patient remains silent, asks for clarification, makes the object of focus another person and/or in some way is not addressing his/her own experience or the personal meanings of situations. No dynamic components are referenced.

1 - No dynamic components are referenced but the patient provides information which descriptively elaborates his/her personal concerns and/or explores the affective parallels between two or more relationships or situations. If the latter, the patient's involvement in the relationships or situations must be clear.

2 - A single dynamic component is referenced.

3 - Multiple dynamic components of different types are referenced. The segment includes two or more references to different dynamic components but the relationship between them is not identified.

4 - Multiple dynamic components are referenced and the relationship between them is identified. The process occurring between components is described or a conflict is explicitly identified.

Objects and Object Links

Objects are persons other than the patient. To score an object reference, the patient's statement must indicate the process in which the patient and object are engaging or the relationship (impact) between the two. The fact that the person is an important figure to the patient is not sufficient. E.g. "I was angry with my mother" would be coded for a reference to "mother"; "My mother was angry with my father" would not receive a code for object references as the relationship does not involve the patient.

The object referenced in the patient's statement is scored using the following codes:

F = father or substitute (e.g. stepfather)

M = mother or substitute (e.g. stepmother)

P = parents (both or unspecified)

SB = sibling

SF = family of origin

T = therapist (current), references to "here" (current therapy)

Appendix VI (continued)

O = other real person (e.g. boss, husband, wife)

U = unspecified objects, i.e. general categories (men, women, doctors, friends), imaginary persons

E.g. "Sometimes I feel as if I hate my mother." M
"I was a member of a gang." U
"I'm not sure why I resent him." O
"When I get angry, he (father) withdraws." F

Object Links

When the patient describes a process (affective, behavioral, or cognitive) that exists between the patient and a first person object and also between the patient and a second person object, an object link should be rated. The processes are described explicitly and are not implied by the patient or inferred by the rater. It is important that both processes must include a patient reference to him/herself. Links among person objects are indicated with a slash.

E.g. "The feeling of disappointment I have with you (the therapist) is the same disappointment I feel with my father." T/F

In the above example, the common process is disappointment (affective) and the person objects are the therapist and the patient's father. Both processes involve a patient reference to him/herself and the object link is thus rated. Examples may arise where the patient refers to two objects but fails to indicate that a common process occurs between the patient and each of the objects.

E.g. "I hadn't seen it before; my brother's anger with my father occurs in the same way as my anger towards him." F
"Brother's anger with father" does not include a patient reference to him/herself and no object link rating is possible.

The directionality of the process does not influence the rating of a link, as long as both processes include the patient.

E.g. "The way I envy my father is the same as the way my younger sister envies me." F/SB

If the patient's reference indicates that both the patient and the object are involved in a process or relationship, it is noted by adding a subscript "B" to the object rating.

E.g. "Perhaps we can get into that further next session." T_B

"The two of us (patient and spouse) are really in conflict about having a baby." O_B

In certain segments, the patient may use pronouns to refer to objects and the type of object referenced may be unclear. If the rater is unable

Appendix VI (continued)

to identify the object referenced from the context of the patient's material, the category of "O" (other real person) should be employed.

Appendix VII: Identification of Patient Problem Characteristics in Therapist's Initial Formulations

Task:

1. To perform a content analysis of the therapist's initial dynamic formulation of the STI patient's problem.

The objective is to identify statements or phrases in the formulation which are descriptive of five discrete problem parts. Three problem parts are dynamic (wish, anxiety, and defense) and two are nondynamic (maladaptive outcomes and objects). The result of the content analysis is a formulation breakdown which lists: a) the wish(es) and fear(s) the therapist describes as determining the patient's dynamic conflict; b) the defensive processes the therapist describes the patient as employing to attempt to manage the conflict; c) the maladaptive outcome(s) the therapist describes as resulting from the conflict or failed attempts to manage the conflict; and d) the objects the therapist identifies as those with whom the patient enacts or experiences the conflict.

2. To rate the degree of confidence with which each problem part is described in the formulation.

Confidence ratings reflect the degree to which the therapist was explicit in describing each problem part. The more clearly the therapist described the problem part, and thus the more easily the statement or phrase can be assigned to a problem part category, the higher the confidence rating. Confidence ratings are assigned to each example of a problem part identified in the formulation, i.e. distinct wishes, fears, etc., identified in the formulation are listed and each is assigned a confidence rating. The ratings within a problem part category are averaged to provide a confidence rating for the category as a whole. Confidence ratings are assigned to the therapist's description(s) of each problem part according to the following 5-point scale. Half-point scale ratings (e.g. 2.5) are permissible.

0	1	2	3	4
No confidence in identification OR problem part not addressed in formulation	Slight	Some	Moderate	Considerable confidence in identification

Definitions:

1. Wishes are defined as the therapist's description of:
   - the patient's sexual or aggressive impulses;
   - the patient's desire for expression in a relationship towards the other (e.g. wishes to express anger towards mother);
   - the patient's desire for expression in a relationship from the other (e.g. wishes to receive approval from father);
   - the patient's desire for expression (e.g. wishes to be

assertive); and/or
- the patient's desire for an object (e.g. wishes for a girlfriend).

2. Anxiety or fear is defined by the therapist's description of a resistance in the patient which arises in opposition to a wish or impulse. The anxiety will usually be described in terms of the patient's fear(s) of what will occur if a wish is allowed expression.

3. Defensive processes are defined by the therapist's description of the patient's attempts to:
- prevent, contain, or indirectly express the impulse or wish;
- minimize or reduce the level of anxiety; and/or
- establish a compromise between impulse expression, anxiety and the constraints of reality.

Defensive maneuvers by the patient can be described as enacted intrapsychically (e.g. transforms positive feelings for wife into feelings of guilt), behaviorally (e.g. procrastination) or interpersonally (e.g. avoids intimate contacts). Any statement or phrase which describes the patient's efforts to prevent, contain, or minimize impulse expression and/or anxiety should be considered as indicative of a defense.

4. Maladaptive outcomes are defined by the therapist's description of negative consequences or results of the patient's conflict and/or attempts to manage the conflict. Maladaptive outcomes can be described as the presence of certain affects (e.g. anger), cognitions (e.g. believes that he/she is worthless), or behaviors (e.g. involvement in abusive relationships) that cause the patient distress, or as the absence of certain conditions (e.g. inability to have intercourse), states (e.g. inability to trust), or situations (e.g. lack of intimacy). Any statement or phrase which describes problematic "end states" for the patient should be considered as indicative of a maladaptive outcome.

5. Objects are defined by the therapist's identification of persons in the patient's life with whom the patient experiences or enacts the stated conflict(s). Objects can be described in specific (e.g. spouse, father) or general terms (e.g. men, coworkers). Specific objects (e.g. mother) may also be part of other object groupings (e.g. parents, family) and both may be present in the formulation.

Rules:

1. Use the therapist's phrases or statements to describe each problem part as much as possible. The way in which the therapist has structured the formulation need not be adhered to, i.e. a dynamic problem part or nondynamic maladaptive outcome may be best described by combining statements or phrases from different points in the formulation. Alternatively, statements in the formulation may be split between problem part categories, e.g. "The patient procrastinates to avoid decisions and then becomes depressed" could

be split to yield a defensive process ("procrastinates to avoid decisions") and a maladaptive outcome ("feels depressed").

2. Each statement or phrase which describes a problem part should be assigned to only that problem part category. Categorization problems are most likely when statements or phrases describe defensive maneuvers which have maladaptive consequences. For example, the therapist may have stated "The patient drinks to numb his angry feelings." In this instance, the drinking serves the purpose of minimizing feelings and the statement would be categorized as descriptive of a defensive process. If the therapist had stated "The patient abuses alcohol", the minimizing aspect of a defensive process is not described and the statement would be categorized as a maladaptive outcome. In effect, the quality of resisting, minimizing, indirect expression, etc., must be evident in the statement or phrase to distinguish a defensive process from a maladaptive outcome.

3. The therapist may address a single general conflict of the patient in the formulation. However, a general impulse may be described in terms of various wishes that can be distinguished on the basis of a) the object relationship involved, b) the form of expression desired, and/or c) the directionality of the expression (from or toward the patient). For example, the formulation may suggest that the patient has a general wish to be loved; the therapist describes such wishes as "wanting approval and respect from his father" and "desiring a close relationship with his mother". Since the object relationships and expressions are somewhat different in each instance, despite their similarity to a general theme, these phrases would be indicative of distinct wishes. Each distinct wish identified in the formulation should be listed as separate and each assigned a confidence rating.

4. A similar rule applies to the identification of the anxiety/fear side of the conflict equation. While the therapist may address a single general conflict, the "core" anxiety may be described in terms of various fears that can be distinguished in the manner noted above. For example, the formulation may suggest a general fear of aggressive impulses; the therapist describes fears of "damaging others with his anger" and "eliciting rejection from others if anger is expressed". Since the directionality and expressions are different in each instance, these phrases suggest that distinct fears could be listed in the breakdown. Distinct fears identified in the formulation should be listed separately and each assigned a confidence rating.

5. Any statement or phrase which describes the patient's efforts to prevent, contain, or minimize impulse expression and/or anxiety should be considered as indicative of a defensive process. Statements or phrases which are descriptive of distinct defensive processes should be listed and each assigned a confidence rating.

6. Any statement or phrase which describes problematic "end states" for the patient should be considered as indicative of a maladaptive

Appendix VII (continued)

outcome. The judge should consider distinguishing different outcomes on the basis of whether they describe the presence of an affect, behavior, or cognition or the absence of a condition, state, or situation. For example, the formulation may refer to the maladaptive outcomes of "failed relations with others and feelings of sadness and disappointment". This phrase could be split to yield an interpersonal (the absence of satisfying relationships) and an affective maladaptive outcome (the presence of distressing affects). Distinct maladaptive outcomes described by the therapist should be listed and each assigned a confidence rating.

7. Formulations may refer to specific (e.g. father) and general (e.g. men) classes of objects. In certain instances, specific objects (e.g. mother) may also be part of other object groupings (e.g. parents, family). All distinct objects described by the therapist should be listed separately and each assigned a confidence rating.

Appendix VIII: Ratings of Correspondence Between Episode Interpretations and Patient Problem Formulation Breakdowns

Materials:

1. Problem Formulation Breakdown. The problem formulation was provided by the therapist for every STI patient in the early stage of therapy. Formulations were broken down into five "problem part categories" which parallel components addressed by the Therapist Intervention Rating System. The problem parts include wishes, anxiety, defensive processes, maladaptive outcomes, and objects. In a formulation breakdown, a maladaptive outcome is regarded as the resultant "product" of a dynamic expression. For example, the therapist may state that the patient feels guilty whenever he/she experiences anger towards their spouse. Guilt represents a maladaptive outcome; in the TIRS, anger giving rise to guilt represents the associated dynamic expression (Ea-Ea).

2. Interpretation Correspondence (IC) Rating Tape. The IC rating tape is comprised of up to 20 segments of patient-therapist interaction. Each segment consists of approximately 2 minutes of patient material followed by a TIRS-rated therapist interpretation which ends the segment. The patient material provides a background context for the rating of interpretation correspondence.

3. IC Rating Sheet. The rating sheet indicates which dynamic components and/or expressions and objects were addressed by each interpretation represented on the IC rating tape. The first few words of the target interpretation are also provided. Ratings of the correspondence between the interpretation and formulation breakdown are made for each component/expression and/or object identified in the interpretation and indicated on the rating sheet.

Procedure:

The task is to rate the "match" between the dynamic components and/or expressions and objects addressed by the target interpretation in each IC rating tape segment, and the specific parallel problem part in the formulation breakdown. In other words, is the component and/or object addressed by the therapist's interpretation (e.g. a wish) identical to, similar to, or different from the specific parallel problem part (e.g. a wish for acceptance from men) listed in the formulation breakdown? Correspondence ratings are made on a three-point scale for each aspect addressed by the interpretation and listed on the rating sheet. Half-scale ratings are permissible. The rating scale is presented below.

1 No correspondence	The component/object is not listed in the formulation breakdown, e.g. the interpretation refers to a different wish. Alternatively, the TIRS rating is regarded as incorrect.
2	The component/object is described in terms similar to

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Moderate correspondence	those of the formulation breakdown. The rater infers that a component is addressed in terms of a similar dynamic, or that an object is addressed in terms of a similar relationship to the patient.
3 Strong correspondence	The component/object is described in terms very similar or identical to those in the formulation breakdown. Components are addressed in terms of the same dynamic, objects in terms of the same relationship.

The procedure for rating interpretation correspondence is as follows:

1. The correspondence between the component/expression(s) and/or object(s) addressed by the interpretation and the specific parallel problem part in the formulation breakdown is rated first. The rating addresses whether the interpretation aspect is different from, in some way similar to, or identical to the aspect listed in the formulation breakdown.

2. Formulation breakdowns may list more than a single dynamic component, maladaptive outcome or object. If correspondence of any degree (i.e. 1.5 or greater) is rated for a problem part category, indicate in brackets which "version(s)" in the category has been rated.

3. Each "version" within a problem part category in the formulation breakdown has also been assigned a "confidence rating", i.e. a rating of how explicit the therapist was in describing that aspect of the patient's problem. After rating correspondence and indicating in brackets which "version" of the problem part has been rated, transcribe the confidence rating for that "version" to below the rating space.

Example:

The target interpretation addresses a patient wish in terms similar to the third "version" listed in the formulation breakdown. A confidence rating of 4.0 was assigned to this wish. The complete correspondence rating for this interpretation reference is:

$$\frac{2.0\ (3)}{4.0}$$

Rating Qualifications:

1. If the interpretation refers to a dynamic expression, the degree of correspondence to be rated is between the expression and the maladaptive outcome(s) listed in the formulation breakdown. In many cases, however, the dynamic expression may be more suggestive of a "weak" wish, anxiety, or defense interpretation than strictly a reference to a problematic pattern for the patient. If this is the case, the correspondence to the maladaptive outcome(s) is rated

first, followed by a rating of correspondence to the dynamic component suggested by the expression. This second rating is entered on the line labeled "Supplemental Rating".

2. Half-scale ratings are important for those instances where the correspondence is only suggested (1.5) or expresses the same idea in different or approximate terms (2.5). For example, the therapist may state, "Your behavior suggests a wish to please me". The interpretation could be regarded as addressing part of the formulated wish, i.e. "wanting to succeed and obtain a positive relationship with (please) mother". The object in the breakdown listing is different and the behavioral expression (succeed) is more specific than the therapist's general use of "behavior". A match is, however, evident in the "wish to please another" and, while minimal, would warrant a rating of 1.5 for correspondence.

3. The objects to be rated are those listed as part of the formulation breakdown. An object addressed by the interpretation but not listed in the breakdown automatically receives a rating of 1.0. Correspondence can only be rated if the therapist makes mention of the dynamic aspects of the patient's relationship to the object as outlined in the breakdown. The more this description correlates with the relationship pattern outlined in the breakdown as a whole, the higher the correspondence rating for the object. A simple reference to an important object in the patient's life is not sufficient to rate correspondence.

4. In a given interpretation, a single object may be referenced more than once. The reference yielding the highest degree of correspondence is rated.

5. When addressing objects, the therapist may only imply other people (denoted by an object symbol with the subscript "i" on the IC rating sheet) or may refer to two or more objects in the form of an "object link" (e.g. T/F). Correspondence ratings address the implied or linked object as above, as if the object were addressed explicitly.

   The therapist may address the transference relationship without specifying links (i.e. T) but still indirectly address aspects of the patient's relationship to a significant object. For example, "wanting my (T) attention" may be seen as similar to "wanting father's attention" given the material provided by the patient prior to the interpretation—suggesting a rating of 1.5-2.0 for correspondence. If the object referenced is T, then, there may be instances where some correspondence to an object listed in the breakdown can be rated.

   A similar argument can be made for therapist references to general classes of objects (i.e. U). The class of objects addressed may include one or more single objects listed in the breakdown (e.g. "men" could include "boyfriend") and some degree of correspondence may be rated. Again, context is important.

   Occasionally, the therapist may refer to an object group which subsumes specific objects listed in the breakdown. For example, the

therapist may refer to "parents" while the breakdown lists "mother"and "father". If the relationship aspects described in the interpretation parallel those in the breakdown, a correspondence rating of up to 2.5 may be appropriate.

6. The therapist may use pronouns in the interpretation to stand for people, feelings, or issues. The material provided by the patient is again crucial as a context for understanding the interpretation. In rating correspondence, consider the interpretation as if no pronouns had been used, i.e. the therapist had spelled everything out in detail. For example, if the patient had been talking about wanting acceptance from F, the therapist could respond with "You're afraid you're not good enough to get that." The rating of correspondence would have to assess whether "fears he is not good enough to warrant father's acceptance" is similar to an anxiety listed in the formulation breakdown.

Appendix IX: Measures of Patient and Relationship Characteristics

A. Measures of Patient "Dynamic Capacity"

1. QOR Assessor ratings. A principal components analysis on the QOR assessor's additional item ratings identified three factors which accounted for 59.9% of the rating variance.

Component 1: QOR-Perceived "Good Therapy Patient" (32.9%)
- Interaction with interviewer (.77)
- Patient likeability (.72)
- Psychological mindedness (.66)
- Patient motivation for STI therapy (.63).

Component 2: QOR-Perceived Affect Regulation (15.4%)
- Control of affect (.73)
- Appropriateness of affect (.71)
- Developmental level of defense mechanisms (.66).

Component 3: QOR-Perceived Focality of Conflict (11.6%)
- Focality of conflict (.83)
- Ease of psychodynamic formulation (.61).

2. Independent Assessor ratings. The independent assessor (IA) provided six ratings of the patient as part of the Social Functioning Interview. A principal components analysis of these ratings resulted in three factors, accounting for 74.8% of the rating variance.

Component 1: IA-Perceived Wasteful Effort (35.7%)
- Wasteful effort (.86)
- Resourcefulness (.76).

Component 2: IA-Perceived Strengths and Assets (23.1%)
- Strengths and assets, in patient's view (.90)
- Strengths and assets, in IA's view (.73).

Component 3: IA-Perceived Minimizing Problems (16.0%)
- Minimizing problems (.90).

3. Patient ratings.

Variable 1: Total score, Tolor-Reznikoff Insight Scale.
Variable 2: Defensive Style Questionnaire (DSQ), Maladaptive Action Patterns factor score.
Variable 3: DSQ, Image Distorting Defenses factor score.
Variable 4: DSQ, Self-Sacrificing Defenses factor score.
Variable 5: DSQ, Adaptive Defenses factor score.
Variable 6: Pretherapy expectation for therapy effectiveness rating.

4. Therapist ratings. The therapist provided 6 item ratings of the patient following the second session. A principal components analysis of these ratings resulted in two factors, accounting for 69.8% of the rating variance.

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Component 1: Therapist-Perceived "Good Therapy Patient" (55.4%)
Interaction with therapist (.85)
Response to therapist interpretation (.84)
Psychological mindedness (.80)
Patient motivation for STI therapy (.72)
Patient likeability (.69).

Component 2: Therapist-Perceived Focality of Conflict (15.4%)
Focality of conflict (.96).

B. Measures of Patient "Problems in Functioning"

A total of 15 variables from the STI pretherapy outcome battery were included in the principal components analysis. The variables included measures derived for the Social Functioning Interview (SFI) conducted by the independent assessor, the patient's ratings of symptom severity and life satisfaction, and the severity ratings of individualized target objectives by the patient, independent assessor, and therapist. The analysis identified four factors, accounting for 60.4% of the variance among the outcome variables. The first factor was by far the largest and captured a general dimension of psychological health-sickness.

Component 1: Patient Symptom Distress (36.0%)
Anxiety (Speilberger Trait Anxiety Inventory; .84)
Self-Esteem (Rosenberg Self-Esteem Scale; .80)
Depression (Beck Depression Inventory; .75)
Work Functioning (SFI; .70)
Life Satisfaction rating (-.64)
Emotional Reliance (Interpersonal Dependency Scale; .64)
Present-Ideal Discrepancy (Interpersonal Behavior Scale; .63)
Global Severity Index (SCL-90; .63).

Component 2: Patient Interpersonal Functioning (9.0%)
Autonomy (Interpersonal Dependency Scale; .74)
Family Functioning (SFI; .66)
Social Functioning (SFI; .61).

Component 3: Target Severity, Therapist (8.1%)
Target Objective Severity, Therapist rating (.86).

Component 4: Patient Sexual Functioning (7.4%)
Sexual Functioning (SFI; .85).

C. Patient and Therapist Expectation Ratings

Patients and therapists were asked to provide ratings of their "expectations of experience in therapy sessions" following the second treatment session. Four sets of 15 item ratings were completed, each participant considering their expectations for themselves and for the

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alternate party. Each set of 15 items was subjected to a principal components analysis.

1. Patient expectations of self. Four factors were identified in the analysis, accounting for 64.9% of the rating variance.

   Component 1: Patient's expectation of own activity (38.1%)
   Express feelings (.79)
   Suggest topics (.74)
   Suggest possible problem solutions (.70)
   Talk (.61).

   Component 2: Patient-expected content focus (11.2%)
   Childhood events (.75)
   Physical symptoms (.71)
   Sexual topics (.68)
   Links between current and past (.65)
   Dream topics (.61).

   Component 3: Patient-expected questioning (8.7%)
   Ask questions (.80)
   Feel comfort in session (.62).

   Component 4: Patient-expected involvement (6.9%)
   Avoid topics (-.90).

2. Patient expectations of therapist. The principal components analysis identified four factors, accounting for 64.8% of the rating variance.

   Component 1: Patient-expected therapist "uncovering" approach (35.2%)
   Link current to past (.76)
   Want to talk about childhood events (.76)
   Help discover unaware aspects (.67).

   Component 2: Patient-expected therapist content focus (12.1%)
   Dream topics (.79)
   Sexual topics (.78)
   Physical symptoms (.72).

   Component 3: Patient's expectation of therapist activity (10.5%)
   Encourage patient to feel comfortable (.73)
   Ask questions (.72)
   Talk (.67).

   Component 4: Patient-expected therapist support (6.9%)
   Avoid upsetting topics (.80)
   Express feelings (.72)
   Suggest possible problem solutions (.67).

3. Therapist expectations of patient. Four factors were identified

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in the principal components analysis, accounting for 66.6% of the variance in item ratings.

Component 1: Therapist's expectation of patient activity (24.2%)
Suggest topics (.82)
Express feelings (.80)
Suggest possible problem solutions (.78)
Talk (.72)
Feel comfortable during session (.61).

Component 2: Therapist-expected patient dynamic focus (20.9%)
Talk about relationship to therapist (.88)
Dream topics (.79)
Link current to past (.70)
Sexual topics (.61).

Component 3: Therapist-expected patient relationship disclosure (11.6%)
Talk about patient's relationships to others (.79)
Childhood events (.67)
Ask questions (-.66).

Component 4: Therapist-expected patient avoidance (9.9%)
Talk about physical symptoms (.71)
Avoid topics (.63)
Discover unaware aspects (-.60).

4. Therapist expectations of self. Five factors were identified in the principal components analysis, accounting for 73.0% of the rating variance.

Component 1: Therapist's expectations of own activity (25.8%)
Express feelings (.90)
Suggest topics (.88)
Suggest possible problem solutions (.79)
Talk (.66).

Component 2: Therapist-expected dynamic focus (16.1%)
Link current to past (.86)
Childhood events (.81)
Want to talk about patient's relationship to therapist (.70)
Help discover unaware aspects (.67).

Component 3: Therapist-expected "indulgence" of patient (12.1%)
Dream topics (.80)
Encourage patient comfort in session (.66).

Component 4: Therapist-expected "history-taking" (10.6%)
Sexual topics (.80)
Ask questions (.77).

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Component 5: Therapist-expected "focus on conflict manifestations" (8.4%)
Physical symptoms (.86)
Want to talk about patient's relationships to others (.70).

D. Patient and Therapist Ratings of the Therapeutic Alliance

Patients and therapists were asked to complete ratings of the therapy relationship after sessions 7, 14, and 20. The 21 item ratings concerned the quality of the affective relationship, the quality of the working relationship, the degree of positive idealized transference in the relationship, and the two dimensions (helpfulness, collaboration) of Luborsky's helping alliance concept. Items were summed and averaged for seven subscales. The subscale scores from each participant at each assessment were subjected to a principal components analysis.

1. Patient alliance ratings, early therapy. Two components emerged from the principal components analysis, accounting for 69.6% of the variance in subscale scores.

   Component 1: Early Therapeutic Alliance (53.8%)
   Helping Alliance-Collaboration (.85)
   Helping Alliance-Helpfulness (.80)
   Affective Relationship (.77)
   Working Relationship-Disclosure (.75)
   Positive Idealized Transference (.75)
   Reciprocal Affective Relationship (.70).

   Component 2: Early Work: Feeling Expression (15.8%)
   Working Relationship-Expressing Feelings (.91).

2. Patient alliance ratings, middle therapy. One component emerged from the principal components analysis.

   Component 1: Middle Therapeutic Alliance (63.5%)
   Affective Relationship (.89)
   Reciprocal Affective Relationship (.84)
   Helping Alliance-Collaboration (.83)
   Helping Alliance-Helpfulness (.81)
   Working Relationship-Disclosure (.78)
   Positive Idealized Transference (.78)
   Working Relationship-Expressing Feelings (.61).

3. Patient alliance ratings, late therapy. Two components were identified in the principal components analysis, accounting for 72.8% of the variance in subscale ratings.

   Component 1: Late Therapeutic Alliance (58.1%)
   Helping Alliance-Helpfulness (.86)
   Helping Alliance-Collaboration (.76)
   Positive Idealized Transference (.73)

Appendix IX (continued)

Affective Relationship (.70).

Component 2: Late Work: Feeling Expression (14.7%)
Working Relationship-Expressing Feelings (.89).

4. Therapist alliance ratings, early therapy. The principal components analysis identified two components, accounting for 68.9% of the variance among the subscale scores.

Component 1: Early Therapeutic Alliance (55.2%)
Helping Alliance-Collaboration (.85)
Positive Idealized Transference (.79)
Reciprocal Affective Relationship (.77)
Working Relationship-Disclosure (.76)
Affective Relationship (.76)
Helping Alliance-Helpfulness (.74).

Component 2: Early Work: Feeling Expression (13.7%)
Working Relationship-Expressing Feelings (.95).

5. Therapist alliance ratings, middle therapy. Two components were identified in the principal components analysis, accounting for 71.5% of the subscale variance.

Component 1: Middle Therapeutic Alliance (57.6%)
Working Relationship-Disclosure (.87)
Reciprocal Affective Relationship (.84)
Helping Alliance-Collaboration (.81)
Affective Relationship (.80)
Positive Idealized Transference (.74)
Helping Alliance-Helpfulness (.68).

Component 2: Middle Work: Feeling Expression (13.9%)
Working Relationship-Expressing Feelings (.96).

6. Therapist alliance ratings, late therapy. One component emerged in the principal components analysis.

Component 1: Late Therapeutic Alliance (66.2%)
Working Relationship-Disclosure (.91)
Helping Alliance-Collaboration (.90)
Affective Relationship (.84)
Helping Alliance-Helpfulness (.81)
Reciprocal Affective Relationship (.81)
Positive Idealized Transference (.80).